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# ARED Newsletter

Agriculture and Rural Economy Division  
Economic Research Service  
U.S. Department of Agriculture

Winter 1990

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Economic and Social Research for Rural America

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Economic and Social Research for Rural America

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*Cover: A maple sugar operation in Geauga County, OH. Photo by George Newberger, USDA/Soil Conservation Service.*

**Note:** The photo on page 35 was provided by Michael Auer (Preservation Assistance Division, National Park Service; (202) 343-9594). Auer's recent *Preservation Briefs: The Preservation of Historic Barns* is available from the U.S. Superintendent of Documents, GPO, Washington, DC 20402-9325. (GPO stock number: 024-005-01054-8; cost: \$1.00)

J. Sterling Morton was the initiator of Arbor Day, which originally was a conservation measure for the Nebraska plains. As Secretary of Agriculture in the second Cleveland Administration, he made large-scale reductions-in-force. However, he substantially increased the department's outlay for scientific research, expanding it into several new areas.

## ARED DIRECTORY

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Farm Financial Analysis  
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Farm Income Estimation  
Section: Roger Strickland ..... 786-1804

### Finance and Development Policy Branch

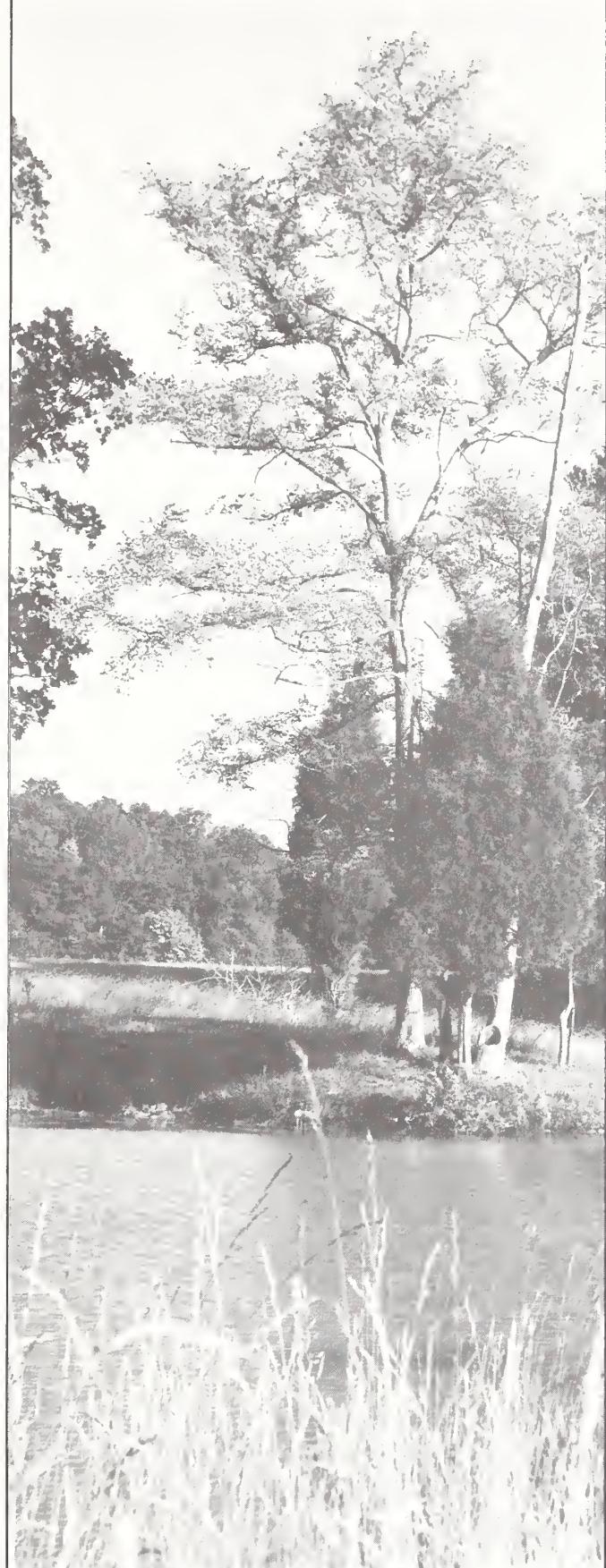
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Rural Finance and Tax Section: Ron Durst ..... 786-1897

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A stream and some trees in Muhlenberg County, KY.

### Why Care about Lagging Rural Development?

by Ken Deavers

The beginning of a new decade usually prompts a bit more consideration of the worth of our activities than the assessments that occur at the start of the other nine years. I would like to use this space in the first issue of the

newsletter in the 90's, therefore, to discuss why we, as Federal government researchers, are concerned with the relatively worse conditions among those who live in many rural areas of the U.S. These remarks were part of my presentation at an AAEA symposium on "Rural Data and Research" in July, 1989 in Baton Rouge, LA.

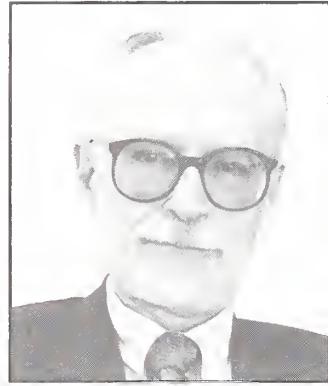
There are basically three arguments for our concern about rural development

policy, though they are seldom expressed in such a discrete way. The arguments rest on three distinct values: economic efficiency, equity or fairness, and a perception of broad public interest.

**Economic Efficiency.** This argument contends that current rural economic underperformance is a result of "market failure". Overcoming market failure will improve the overall growth of the national economy. Within limits, public expenditures to remedy specific cases of market failure will increase national productivity and competitiveness, and thus national output, by more than their cost. In this case, more rural jobs are not achieved at the expense of urban jobs. That is, rural policies that improve the competitiveness of rural areas by increasing efficiency are not a zero sum game.

Market failure can take many forms. One of the most obvious is the existence of externalities - a mismatch between who benefits and who pays for certain activities. The education of rural children seems to be a good example.

Much of the growth in the U. S. economy is attributable to the relatively high levels of capital embodied in the work force. We are a mobile society, moving to adapt to changes in spatial economic advantage. As a result there is a national stake in the educational attainment of all children. The current system of leaving educational financing to states and local areas does not serve our national interest very well. Poor rural jurisdictions (which tend to be concentrated in poor states) have limited resources with which to meet the educational needs of their children; and they have limited incentives to invest in the education of their children.



Ken Deavers

In the mid-West and Plains, rural communities made commitments to invest in the education of their children, only to see them move away because of the unavailability of enough good local jobs. For decades the rural South has exported large numbers of poorly educated people, placing the burden of catch up on private employers, other public jurisdictions, and these people themselves. Some suspect that current problems in many central city school systems have their roots in failures of state and local educational policy many years earlier - in places far removed in space and time from where the problems now exist.

Because rural areas have few jobs for better educated workers, the best educated rural people are the most likely to move away, carrying their educational investments with them to other jurisdictions. At the local level, then, it may appear fruitless to invest in upgrading education since it may simply encourage people to leave.

Large scale internal migration of people and firms has been a characteristic of U.S. economic development from the very beginning. And questions about the consequences of such migration for individuals, families, and communities have always been of interest. It appears, from the evidence we have, that at an individual level migration decisions are economically rational. Most people who move do better after their move than they would likely have done if they had remained where they were. But there is little analytical evidence about the public costs to migration as opposed to these purely private returns. If there is a serious divergence between the public costs and private returns, we may be abandoning existing infrastructure in rural areas that could be kept economically productive at a public cost substantially below that of constructing new infrastructure in already congested urban areas. This represents another potential dimension of market failure.

Economic theory about competitive equilibrium and efficiency treats information and transactions costs as negligible. But there are many reasons to believe that may not be the case. If rural areas are disproportionately affected by these costs, and it seems likely that they are because of the increased pace of technological and market change, then market outcomes may not result in an efficient organization of economic activity over space. If, for example, the cost of obtaining information about investment opportunities in small, remote areas and firms is very high, capital markets may systematically invest too little in potentially high return rural ventures. Such an argument may justify public efforts to reduce the overall costs of information and of small transactions, but they are not an argument for a general subsidy of rural credit.

High per unit costs for some services, which may preclude the organization and delivery of those services in many small, remote rural areas are not an example of market failure. Marshall noted that scale and extent of the market may limit specialization. If a decision is made to subsidize some kinds of rural facilities or services because rural areas will not have such services without subsidies, that decision reflects another goal of rural policy.

**Fairness.** The fairness argument is that rural people should not have to pay for their place of residence with a significantly lower material standard of well-being than that of urban people. The argument is particularly relevant to the situation of the disproportionately large numbers of rural poor people. The rural poor not only have low incomes but often live in poor States in local jurisdictions that are poor overall - the persistent poverty counties identified by ERS. These areas lack resources to provide the kind of public social services typically available to the urban poor.

Central place theory, perhaps the most powerful concept of regional science, suggests that rural territory with low population density, limited economies of scale, greater distance to markets, information, and technology, and fewer opportunities for specialization, will probably always lag behind larger urban places in a purely market-driven economy. Left to market forces alone, or under the influence of macro policies designed to achieve nationally determined employment and inflation goals, rural areas are likely to remain at a disadvantage.

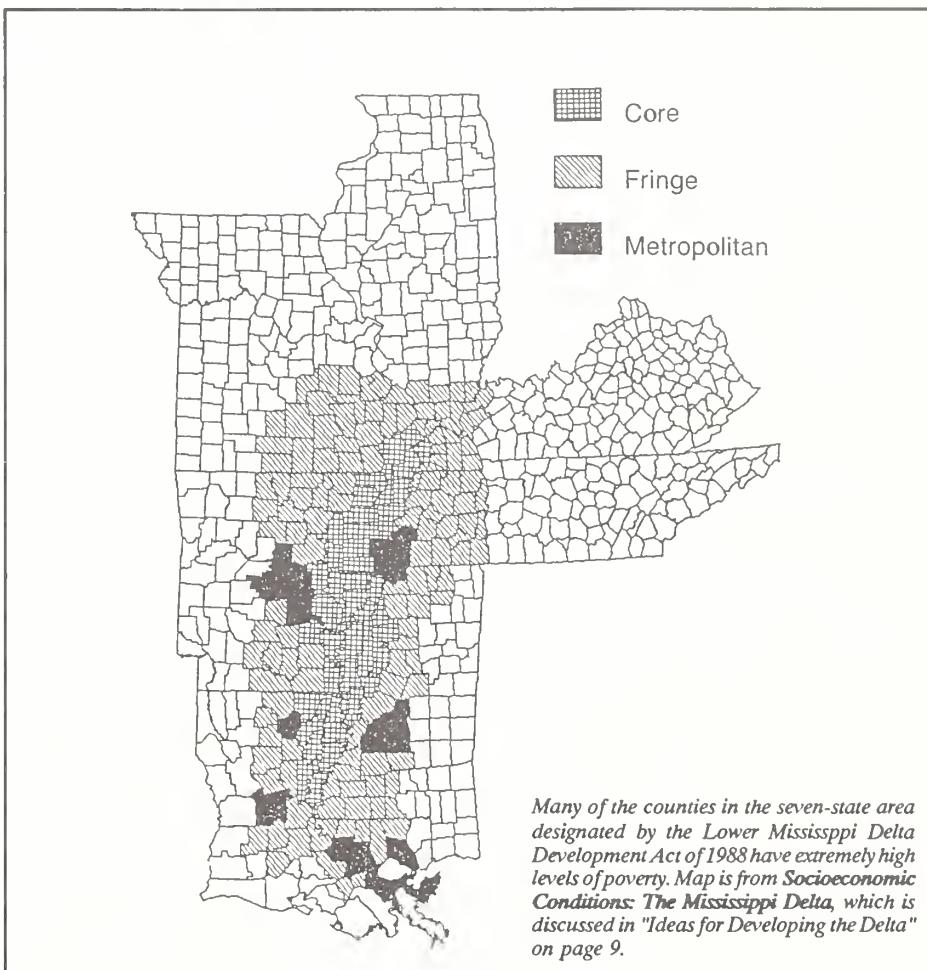
Faced with this set of conditions, the Federal government has occasionally embarked on expensive programs to address serious disparities between rural and urban incomes and standards of living. The Tennessee Valley Authority was created to aid the economic development of a defined multistate area with limited resources - an area frequently ravaged by floods and containing a very poor population. Similarly, the electrification of rural America was undertaken with massive subsidies from the taxpayers, and rural telephone systems were created with subsidies provided by all taxpayers and/or other users of the telephone system. The principal justification for these programs was fairness. There was a broad political consensus that rural (at the time mostly farm) people should enjoy the fruits of society's advancing technology and improving well-being, even if the investments were not efficient in a market sense. There appears, however, to be no continuing commitment to inter-regional transfers to disadvantaged areas, to what in the European context would be called the "solidarity principle." In fact, the current political definition of fairness seems to be that each jurisdiction should get back in Federal spending every dollar that it pays in Federal taxes.

Given adequate data, social scientists can identify, measure, and document differences between rural and urban people in income and other indices of well-being. And when the political system reaches agreement on some explicit fairness objectives, social

scientists can contribute analyses of the effectiveness of particular strategies in achieving those objectives. But they have no special competence to decide what is fair.

**Public Goods.** This argument involves recognizing a national stake in protecting certain rural resources and residential living options, and understanding that market price mechanisms alone are an inappropriate way of allocating the use of such resources or protecting alternative living options. There is a long history of such views about the preservation of prime farm land. Similar rhetoric is emerging about other unique rural resources - clean air and water, aesthetic and scenic settings, community structure and values, low density settlement. What is implied by this argument is that urban people also have an interest in the spatial distribution of economic opportunity and settlement. Urban people believe that certain kinds of rural "scenescapes" have national value and will be preserved for them to enjoy. But without explicit public policy interventions to assure their survival, some may not.

Identifying the "public goods" aspects of rural America that should be preserved is largely a political issue, as is a decision about how much should be spent on these public goods as opposed to others. Nevertheless, social scientists can contribute to an informed debate through their analyses.



## Division Undergoes Limited Reorganization

by Dick Long

In December, the Agriculture and Rural Economy Division abolished its Rural Business and Government Branch (RBG) and merged the branch's two sections into other branches. RBG's Rural Business and Industry Section and the Rural Labor Markets Section in the Human Resources Branch were consolidated into the Rural Employment Section in the renamed Human Resources and Industry Branch. The Government and Development Policy Section retains its name and functions after its transfer into the Finance and Tax Branch, which was renamed the Finance and Development Policy Branch.

We looked more closely than usual this fall at division operations because of budget worries. What we found, however, was an opportunity to facilitate the division's research on rural employment and governments' development policies while also realizing the needed savings.

The Rural Business and Government Branch Chief position fell vacant when Norman Reid became Deputy Director for Rural Development. The new post enables Reid to extend his leadership and research-synthesizing abilities to the division's entire rural development program.

Because of Herman Bluestone's retirement, the Rural Business and Industry (RBI) section head position was also open. Beyond that, however, RBI and the Rural Labor Markets Section (RLM) have both been studying rural employment, albeit from somewhat different perspectives and with different methodologies and techniques. RBI has concentrated on the effects of industrial structure and the sectoral mix of rural industry on employment trends. RLM has examined the topic from the perspective of the workforce and has been moving toward research on the development of human capital. Recently, staff in the two sections have been sharing data and working together on joint projects. The new organizational arrangement puts the people engaged in this closely related work into one section.

The Government and Development Policy Section's work on rural infrastructure and its financing made the Finance and Tax Branch the logical place for the section to migrate.

Abolition of a branch and one section will result in gradual but eventually considerable savings in management overhead for ARED. The budget was, and is, a pressing issue for several reasons. Under departmental guidance, the agency has reallocated funds from rural development research to agricultural commodity analysis for the last two fiscal years. Further, the program base has been eroded by the recent unfunded pay increase, several promotions in the last two years, and the rapidly increasing overhead costs that each program must bear directly under the new Federal retirement system. The application of the Gramm-Rudman sequestration for part of the year also hurts. The coincidence of money problems with several simultaneous vacancies in key leadership jobs was a catalyst for reorganization.

## 12th Annual Family Farm Report Sent to Congress

by Sara Mazie

Over the last decade, the factors influencing the economic health of the U.S. farm sector have greatly expanded. Gone, probably for ever, is that special situation following World War II, when the United States operated essentially in a closed economy and our farming and manufacturing sectors set the standards for the world. A new generation of American farmers is learning how to survive in a dynamic and competitive world economy. Today's farmers who hope to continue farming into the 21st century must master the technical aspects of crop and livestock production and marketing and also understand the implications for their farm businesses of changes in macroeconomic policy and many other factors external to the farm sector.

This expansion of the external forces affecting domestic agriculture is one of the themes of the 12th annual Family Farm Report titled *The Farming Sector Entering the 1990's*, that was sent to Congress in December. The report starts with a discussion of the structure and status of the farm sector as we enter the 1990's. This is followed by an examination of the effect of farm commodity programs, agriculture credit conditions and policies, biotechnology developments, and conservation policy on the sector. The fortunes of the farm sector have also become so closely linked to both foreign and domestic macroeconomic policy, tax policy, and trade policy that shifts in any of these policies have a ripple effect in the agriculture sector.

In a section on macroeconomic policy, Ralph Monaco and John Kitchen (National Economy and History Branch) discuss how in the early 1980's the Federal Reserve's tight monetary policy designed to keep inflation down, coupled with large Federal budget deficits, encouraged higher real interest rates and exchange values of the dollar in world markets. The result for farmers, coming from forces largely beyond their control, was reduced farm exports, lower commodity prices, and increasing interest costs.

Similarly, in a section on tax policy, Ron Durst (Finance and Development Policy Branch) discusses how the Tax Reform Act of 1986 shifted the Federal income tax system so that future investment in agriculture will be based more on economic returns and less on tax benefits. A third section by Dick Kennedy (Agriculture and Trade Analysis Division) describes how the outcome of the current round of international meetings on trade policy might affect our domestic agriculture sector depending on the degree to which domestic trade policies around the world become more market-oriented.

Other principal authors from ARED are Nora Brooks, Tom Carlin, and Donn Reimund (Farm and Rural Economy Branch), and Doug Duncan (Finance and Development Policy Branch). Other ERS authors include Tim Osborn and John McClelland of the Resource and Technology Division. The published report (AIB-587) will be available from ERS/NASS in March.

## What It Costs to Produce Agricultural Commodities

The 1973 Farm Bill gave USDA the mandate to produce national estimates of the average cost of producing wheat, feed grains (corn, oats, barley, sorghum), cotton, and dairy. These estimates are published annually in the *Economic Indicators of the Farm Sector: Costs of Production* series, and forecasts of average costs are published periodically. Until recently, the estimates had two major weaknesses that prevented adequate analysis of larger questions such as how much of a specific commodity is produced at a given cost level. Both weaknesses are now a thing of the past, however.

One weakness was that the cost of production estimates did not use probability-based survey data. Since 1984, cost of production data have been collected on special versions of USDA's probability-based Farm Costs and Returns Survey (FCRS) on a 4-year rotation basis. With the completion of the 1988 FCRS, probability-based data is available for all of the commodities.

The other weakness was that the Firm Enterprise Data System (FEDS) only produced estimates of average costs at the State or regional level, which were then aggregated into other regional and the national averages. A new system, the Farm-Level Budget Model (FLBM), has been developed that prepares a commodity budget for each respondent. State, regional, and national averages are then aggregated from individual-operation budgets. The one-to-one correspondence between production costs and descriptive data for individual farms also enables research on differences in farm-level costs by farm and operator characteristics, production practices, land tenure, and resource use. The tables on the right show some of the enhanced information the new system affords. Only each crop's average cost was available before.

The analysis underlying the figures in the second table can also determine that, for instance, in 1986, 59% of wheat farms had economic costs below the target price of \$4.38. Furthermore, because large farms tend to have lower costs and account for more of the production, 82% percent of wheat production was produced under the target price. This type of information is obviously valuable to policymakers in setting support levels, but it is also critical to the understanding of the competitiveness of U.S. agriculture.

The FLBM has been a long time coming because it involved building a whole new system for research reports and staff analysis. It will significantly strengthen ERS' ability to provide information on U.S. agriculture. The need for distributional information has been obvious to ERS staff and managers for some time. However, three groups have been necessary ingredients to its fruition, ERS managers: Jim Johnson (FSFA), David Harrington and Ken Deavers (OD), and John Lee (OA); the National Agricultural Cost of Production Standards Review Board, under the support and leadership of Bill Turrentine; and, last but not least, the past

and present economists of FSFA's Farm Costs and Returns Section. The primary modeler has been Dargan Glaze. Others contributing to the building and analysis of the FLBM are Mir Ali (wheat), Robert Dismukes (peanuts and barley), Bill McBride (soybeans), Mike Salassi (rice), Ken Mathews (cotton and sorghum), Bob Pelly (corn), Hisham El-Osta (oats), Bob McElroy, and Mary Ahearn.

The "official" average estimates are still calculated with the FEDS. Once a model is built for each commodity with the FLBM, all estimates and special analyses will come from the new model, which will be specific to the year in which the data are collected. To date, models have been completed for Rice, Wheat, Soybeans, Sorghum, Corn, and Cotton. Barley, Peanuts, Rice and Oats are currently in the works.

### Total economic costs

#### Costs of production

Crop/unit	Dollars per unit of production			Survey year
	25% of farms less than	Average	25% of farms higher than	
Wheat (bu.)	3.01	3.50	6.12	1986
Soybeans (bu.)	3.98	4.53	5.57	1986
Sorghum (bu.)	1.51	1.87	2.65	1986
Corn (bu.)	1.87	2.15	2.90	1987
Rice (cwt.)	7.46	9.25	10.89	1984
Cotton (lb.)	.66	.72	1.04	1987

#### Percent of Production, by costs groups

Crop	Percent			Survey year
	Lowest quartile	Mid-range	Highest quartile	
Wheat	48.5	47.3	4.2	1986
Soybeans	37.2	51.8	11.0	1986
Sorghum	44.0	43.1	12.9	1986
Corn	34.9	56.9	8.2	1987
Rice	30.0	46.5	23.5	1984
Cotton	48.5	42.6	8.9	1987

## Can Agricultural Commodity Prices Play a Role in Monetary Policy?

Because monetary policy plays a key role in determining interest rates, prices, inflation, exchange rates, and economic growth, the increased volatility in these variables during the past two decades has prompted a reevaluation of the methods and strategies of monetary policy. In particular, increased attention has been focused on the potential use of commodity prices for formulating and assessing monetary policy.

The Federal Reserve tries to achieve a desired result in *goal variables* such as inflation or total production by hitting the target values of *target variables* through its manipulation of a number of instruments it controls. Because of uncertainty about the relationship between goal variables and target variables, however, the Fed uses *indicator variables* to provide additional information on market conditions and the effect of its policies.

Among the various roles suggested for commodity prices in monetary policy, the proposal to use commodity prices as indicator variables has received the most attention and may be the most viable. The primary goal variable that they would be associated with is inflation. For commodity prices to be successful indicator variables, two key links must be identified: monetary policy's effects on primary commodity prices, and the relationship between primary commodity prices and the general price level. Agricultural and industrial commodity prices have been suggested as possible candidates because they are sensitive to changes in economic activity and inflation expectations.

To gain information about the usefulness of commodity prices in monetary policy, John Kitchen (National Economy and History Branch), Roger Conway, and Michael LeBlanc (both Resources and Technology Division) have used two different approaches to examine empirical evidence on the relationships between commodity prices and relevant macroeconomic variables. First, they examined time-series evidence for monthly observations of commodity price indexes, general price-level indexes, gold prices, monetary aggregates, industrial production, interest rates, and exchange rates. The time-series approaches focused on identifying the order of integration of the various series, and then testing for cointegration among key series that had similar integration orders. (Cointegration means that a fixed longrun relationship existed for the variables, so that none of the variables would drift away from that relationship over time.) Second, they used quarterly data and a reduced-form equation from an asset-market approach to understand the role of agriculture-specific versus macroeconomic variables in determining agricultural commodity prices.

The time-series evidence provided some support for using nonagricultural commodity prices as indicator variables. John, Roger, and Michael observed evidence that nonagricultural primary commodity prices, the M2 money supply, and the producer price index measure of the general price level were cointegrated. Hence, they identified the two key links necessary for nonagricultural commodity prices to be successful indicator variables. However, the time-series evidence did not provide support for a policy role for agricultural commodity prices.

The asset-market approach revealed that monetary effects on agricultural commodity prices could be identified and separated from the effects of agricultural policy and production shocks. However, if the Federal Reserve were to use agricultural commodity prices in a monetary policy role, it would need to clearly understand the distortions in agricultural commodity prices caused by policy and production shocks.

The researchers' broad conclusion is that nonagricultural primary commodity prices may carry useful information for implementing monetary policy, particularly with respect to inflation goals. However, results from both the time-series and the asset-market procedures, coupled with the price-restricting nature of agricultural policy, suggest a limited role for agricultural commodity prices in monetary policy.

## A View of the Patchwork Rural Economy

ERS reports document that the rural economy has followed the general ups and downs of the U.S. economy. After strong employment and earnings growth in the 1970's, interrupted only by the 1974-75 economic downturn, nonmetro counties suffered severe declines during the back-to-back recessions of 1980 and 1981-82. While conditions have improved during the current recovery, nonmetro counties have not yet fully recovered from these setbacks.

Yet, while these reports paint a good picture of general economic conditions in rural America, they mask considerable variations in economic performance during these periods between nonmetro and metro counties and among nonmetro counties differing by region, urban population, proximity to metro areas, and economic activities. Alex Majchrowicz (Farm and Rural Economy Branch), in his recent report, *Patterns of Change in the Rural Economy, 1969-86* (Rural Development Research Report Number 73), uses Bureau of Economic Analysis county data to shed new light on recent economic trends in rural areas. The report contains over 24 tables that detail data for metro and nonmetro portions of regions and types of nonmetro counties, and provides an important view of changes in employment and earnings by major industries.

In general, employment and earnings grew faster in nonmetro counties than metro counties through the mid-1970's. However, during the 1979-82 recession, both nonmetro employment and earnings fell, while metro employment grew and earnings fell less. Since then, employment and earnings in nonmetro counties have improved only half as fast as in metro counties.

The rapid nonmetro growth in the 1970's was partly attributable to national manufacturing firms that opened branch plants in rural communities and to booming construction activities. These industries especially contributed to the strong early performance of the nonmetro South and West. When the 1979-82 recessions arrested rural growth, rural manufacturing was depressed most severely, particularly in the Midwest. Since 1982, manufacturing employment and earnings have grown faster in nonmetro counties than in metro counties, but largely because of the lack of growth in metro counties.

The strength of nonmetro service-producing industries, which contributed to much of nonmetro employment growth through the mid-1970's, began to expand more slowly after 1978. Since then, the nonmetro share of U.S. employment in service-producing industries has fallen from around 18.5 percent to 17.4 percent in 1986, possibly because nonmetro counties lack the businesses to support the same growth as in metro counties. Earnings per worker in nonmetro service-producing industries also declined compared with metro earnings, falling from 78.8 percent of the metro average in 1979 to 73.8 percent in 1986. This decrease may have occurred because the types of nonmetro jobs created typically required less skills and payed lower wages than those in metro service-producing industries.

Some nonmetro counties did better than others during 1969-86. While employment trends among nonmetro counties with different urban populations and different proximities were similar at the national level, regional analysis shows that nonmetro counties adjacent to metro areas generally grew faster and recovered from recessions better than nonadjacent nonmetro counties. Nonmetro employment in counties dependent on Federal lands and retirement activities rose in all three periods and grew faster than employment in counties with other economic bases. At the same time, employment in manufacturing- and farming-dependent counties grew slower and fell quicker than employment in counties dependent on other economic bases. The pattern in mining employment displays the effect of outside factors on the rural economy. Employment in mining-dependent counties in the South and nonadjacent counties in the West grew during the 1979-82 recession, because of high energy prices, but has fallen in almost all mining-dependent counties since then, despite the general improvement in the U.S. economy.

## Ideas for Developing the Delta

The recently published *Socioeconomic Conditions: The Mississippi Delta* (Mississippi Agricultural & Forestry Experiment Station, Bulletin 965) examines a region that historically has had a disproportionate share of poverty and lagging economic development. So distressed are the region's economic conditions that Congress passed the *Lower Mississippi Delta Development Act* in 1988. The Act established a commission to study the area and make recommendations about economic development needs.

The study that resulted in the publication was initiated by Bernal Green (Farm and Rural Economy Branch and adjunct professor at the U. of Arkansas) and Lynn Reinschmidt (Mississippi State U.) in 1987, a year before the Act's passage, under an ERS cooperative agreement. The study's focus on a large set of socioeconomic indicators within a region that extends across several States gives it unusual breadth.

The Act designated 186 counties in Arkansas, Louisiana, Mississippi, Tennessee, Kentucky, Missouri and Illinois as part of the Delta region. Recognizing the Delta's heterogeneous nature, Bernal and Lynn grouped counties into three categories: the "Central Delta", which comprise the poorest rural areas; the "Fringe Delta", rural counties with some conditions similar to those in the Central Delta; and 24 Metropolitan Delta counties (see map on page 5).

The study's recommendations focus on the Central nonmetro Delta, where level of living indicators show a pattern of severe undereducation and deprivation. The authors state that, "If policy makers take a 'worst-first' approach, then the Central nonmetro Delta area deserves national attention." The Delta's economy relies heavily on natural resource sectors, particularly field crop farming that is concentrated in large-size farms. It does not contain nor

is it adjacent to major metropolitan centers. Furthermore, since it lies mainly within three states that are among those with the lowest per capita incomes (Arkansas, Louisiana and Mississippi), the authors believe that outside economic intervention is critical.

As they note from an article by Charles Venus in the *Arkansas Gazette*, the Delta is a valuable agricultural area. However, agricultural advances long ago reduced labor needs far below the area's labor force. Outmigration has reduced the surplus population and industrial development has provided some additional employment, but a large number of people cannot find jobs in the region. Furthermore, the outmigration has been selective, leaving an older, less-educated residual population with several poverty-linked characteristics. To overcome these multiple deficiencies, Bernal and Lynn conclude that the conventional models for delivering basics such as education and medical care need to be modified.

They believe that the area needs two sets of policies. One is a "rural transition" policy combining basic education, nonfarm occupational training, and other "mobility enhancers". The other is a development policy that applies new resources to existing economies with the aim of expanding and diversifying them.

As the leading element of the rural transition policy, Bernal and Lynn propose a new type of magnet school strategically located in the Central nonmetro Delta. Educational institutions who have strong reputations for being innovative and creative in the human capital realm (especially remedial education and health) could receive Federal support to guide or operate the Delta magnet schools. Adequate funding would permit the school systems to respond to the educational needs of adults with multiple poverty-linked traits as well as the normal needs of the school-age population.

Promoting the growth of the aquaculture industry is offered as a possible focal point of the development policy. Bernal and Lynn point to three factors that they believe make this a viable option. First, consumer demand for fish is growing because of their perception that white meat is healthier than red meat. Second, aquaculture is probably the best use of the vast land and groundwater resources in the area. Mississippi already has the largest acreage of any State in catfish production, and climate or soil conditions have proven inhospitable to most crops other than traditional field crops. Third, close-by processing of aquaculture products would generate employment and income both directly and in supporting sectors of the local economy.

Expanded aquaculture would require coordination of a number of elements: basing production of fish on appropriate aquacultural biology and related research; concurrently gearing processing facilities to increasing supplies of fish; developing other commercially-viable fish species; and conducting marketing research. Vertical integration, such as in the broiler industry, is one possible mechanism for achieving the necessary coordination.

## State-Level Comparison of Metro and Nonmetro Economic Performance

State governments have recently become leading actors in the economic development field and will likely remain so for some time. As a result, increasing interest has been shown in state-level information and analysis. One state-specific question frequently asked is: "Should a State consider implementing a unique rural development program as part of its overall economic development effort?"

To help inform consideration of this matter, John Redman and Tom Rowley (Finance and Development Policy Branch) have developed a classification scheme based on 1979-87 state-level earnings growth. While many other factors are of obvious importance to the policy decision, e.g., relative levels of per capita income and unemployment, they believe that earnings growth provides a useful first measure of underlying State economic strength and the balance of metro and nonmetro growth.

### Categorization of States by real earnings growth, 1979-87

Nonmetro earnings growth

		Strong				Weak				Large	Small	Metro-Nonmetro difference						
Strong	Strong/unbalanced	Strong Metro/unbalanced																
		<u>Met</u> <u>Rur</u>		<u>Met</u> <u>Rur</u>		<u>Met</u> <u>Rur</u>												
Strong	Strong/unbalanced	FL 39.0 28.9		AK na na		NM 19.7 -0.9												
		GA 40.8 19.3		AZ 40.3 6.0		NY 19.4 9.3												
		NH 60.5 37.0		CA 25.6 6.2		SC 19.3 10.5												
		NC 27.9 14.6		CO 17.1 0.9		TN 15.9 4.6												
		VT 37.0 19.4		MN 14.6 -7.8		TX 15.1 0.3												
	Strong/balanced	VA 33.6 13.4																
		<u>Met</u> <u>Rur</u>																
		CT 28.4 31.0																
		DE 14.9 20.9																
		HI 13.9 25.9																
Metro earnings growth	Strong	ME 26.8 21.9																
		MD 22.6 25.3																
		MA 29.4 46.6																
		NV 21.6 25.9																
		RI 15.0 39.3																
	Weak	Weak/unbalanced				<u>Met</u> <u>Rur</u>		<u>Met</u> <u>Rur</u>										
		AR 9.2 -1.9				NE 4.2 -7.7												
		ID 2.4 -7.9				ND -1.6 -18.7												
		IL 0.6 -18.5				OK -0.5 -13.1												
		KS 8.8 -7.9				OR -3.3 -12.4												
	Weak	KY 0.6 -7.7				PA 0.6 -8.9												
		LA -7.7 -17.7				SD 5.7 -11.3												
		MS 4.4 -6.9				WA 8.1 -9.1												
		MO 8.2 -5.0																
		Weak/balanced				<u>Met</u> <u>Rur</u>		<u>Met</u> <u>Rur</u>										
	Weak	AL 8.5 4.6				OH -5.2 -11.1												
		IN -3.9 -7.1				UT 9.9 6.2												
		IA -8.0 -15.6				WV -20.7 -15.8												
		MI -6.1 -6.2				WI -1.3 -4.4												
		MT -13.9 -12.9				WY -44.2 -20.2												

The scheme classifies States two ways. First, each State's metro and nonmetro area is classified as either 'Strong' or 'Weak' based on whether its earnings growth exceeded or fell short of the 1979-87 aggregate national earnings growth rate of 11.4 percent. Second, each State's relative metro/nonmetro earnings growth is classified as either 'unbalanced' or 'balanced' based on whether the State's metro area outgrew the State's nonmetro area by 8 percentage points, an average annual difference of at least 1 percent over the eight-year study period.

The States fell into five categories based on a combination of the classifications. The figure on the left shows the absolute earnings growth of each State's metro and nonmetro (rural) areas and how the States were categorized.

The typology prompts a number of considerations about rural development efforts. In States with strong, balanced metro and nonmetro earnings growth, development programs that target distressed areas, both metro and nonmetro, may

be satisfactory. In States with strong but unbalanced metro and nonmetro earnings growth, diversion of funds for a special rural development effort might prove unacceptable given the nonmetro economy's relatively rapid growth. In States with weak metro and nonmetro earnings growth, irrespective of the metro/nonmetro balance, the relatively poor performance of the metro area may make it difficult to justify increased diversion of resources to rural development.

The best case for a special rural development policy exists in ten States that had strong metro and weak nonmetro earnings growth resulting in a large metro/nonmetro performance difference. In these States, expanding metro economies could provide a source of financial and technical support for rural development.

State-level data for the 1979-86 period and analysis of that data are contained in *State-Level Comparison of Metro and Nonmetro Economic Performance, 1979-86* (Staff Report, AGES 89-60). The February issue of *Rural Development Perspectives* will also carry a report on the study, including a map showing each State's category.

John and Tom are continuing their examination of state-level economic performance with a study of changes in average per capita income inequality among States and among counties within States over the 1969-88 period. Their progress is discussed on page 21.

## OFFICE OF THE DIRECTOR

### Publications

An article, "The Rural Paradox", by **Dick Long**, appeared in the September issue of *State Government News* published by the Council of State Governments. The article discusses the diverse economic bases of rural areas and some of the implications of that diversity for State rural development programs.

"Agricultural Policy and Rural Development", by **Norman Reid**, was published as a chapter in *Agricultural-Food Policy Review: U.S. Agricultural Policies in a Changing World* (AER 620). In the article, Norm asserts that farm programs ineffectively address most rural economic problems. Farming has become less important in the economies of rural areas and manufacturing, mining, and service industries account for more rural employment and income than farming. Yet, farm programs have dominated Federal policy for rural areas. Future policy decisions should be based on strengthening all rural economic sectors, not just farming.

### Papers Presented & Meetings Attended

**Ken Deavers** and Calvin Beale (HRI) briefed the National Commission on Agriculture and Rural Development Policy on overall conditions in rural America at its first meeting on rural development, January 11-12 in Washington. Other speakers included Under Secretary Roland Vautour; Doug Ross, President of the Corporation for Enterprise Development; and representatives of the National Association of Towns and Townships and the National Association of Development Organizations. The Commission will meet again in Washington, February 8-9, and then begin a series of monthly field meetings that will take them to Wisconsin, Mississippi, Appalachia, Nebraska, and western Montana.

**Ken Deavers** presented a background paper, "Public and Private Services in the Rural United States: Trends and Issues", at the Experts Meeting on the Rural Services Project of the Public Management Service of the Organization for Economic Cooperation and Development, in Paris, France, in October. The paper was coauthored by **Norman Reid**, Shirley Porterfield (HRI), Rick Reeder (FDP), and Elliott Dubin (ACIR). It summarizes major trends and public policy issues in both the public and private services economies in the rural U.S.

Ken was also the presenter on "Rural Development" for the session on "Rural Income Strategies" at a workshop "Food and Agricultural Policy Issues - Alternatives for the 1990's" in Washington, November 16. The workshop was sponsored by nine organizations including ERS.

**Norman Reid** gave the keynote speech at the October Invitational Aspirations Research Conference sponsored by the U. of Maine, Orono. His remarks, titled "The Rural

Economy of the Future: Challenges for Rural Youth", emphasized differences in the rural economy facing youth today as compared with the economy in their parents' time. Norm also participated in an hour-long panel discussion broadcast live over Maine public television.

**Norman Reid** made a presentation entitled "Economic and Social Factors Affecting the Future of the Rural Economy" at the November 1 National Headquarters Staff Seminar of the Soil Conservation Service. Reid emphasized the structural changes that underlie rural economic performance in the 1980's and outlined some of the challenges these changes will present during the 1990's.

**Norman Reid** spoke about "Economic and Social Changes and the Future of Rural America" at the Coalition for Rural West Virginians' Invitational Symposium in Charleston, WV, on November 8. The group, convened by the West Virginia School Boards Association, Charleston, WV, is a coalition of public and private organizations that promotes economic and social development in rural West Virginia. Norm's remarks focused on structural changes likely to condition future trends in the rural economy.

Norm also attended an advisory panel meeting on the study "Information Age Technology and Rural Economic Development" being done by the Office of Technology Assessments (OTA). Many of the panelists commented about OTA's heavy emphasis on technological issues. Many of them also referred to the critical importance of human capital and rural institutional capacity in accommodating technological advances.

**Sara Mazie**, gave the keynote address, "Rural America: Experience of the 80's, Challenge in the 90's," at a Southern Utah State U. and Project 2000 conference in Cedar City, UT. While in Utah, Sara was also interviewed live on Salt Lake City's KUTV News.

### Briefings & Miscellaneous

*Rural America: Economic Performance, 1989* was prepared by **Norman Reid** and Martha Frederick (HRI) for the Secretary of Agriculture. The report provides a statistical profile of the rural economy in the 1980's, with emphasis on the most recent employment, income, and population indicators. It also stresses that structural adjustment is probably a more important explanation of rural economic trends than patterns of recession and recovery. Rural areas remain dependent on low-wage industries to employ a work force with lower-than-average skills. The report will also be published by ERS and given general distribution.

**Norman Reid** will be staffing the National Commission on Agriculture and Rural Development Policy during its investigation of rural development issues in 1990. The Commission, whose 19 members include 15 presidentially-appointed members and four ex-officio congressional members, has a two-year life. During its first year, the Commission considered farm bill issues and will soon release

a report of its findings to the President and Congress. In 1990, the Commission will devote its attention to rural development problems. A final report is expected by the end of the year.

## Rural Development Perspectives

The article, "Should Rural Communities Fear Bank Deregulation?", by Daniel Milkove and Patrick Sullivan (Finance and Development Policy Branch) was chosen as the Best Article Award for Volume 5. The article discusses the initial impact of bank deregulation on rural banking. Dan and Pat find that, on balance, deregulation is likely to have a positive effect on rural areas because communities and businesses will have better access to urban capital through rural banks that have become branches of urban-based banks without losing the services of existing rural banks. The award-winning article appeared in the February 1989 *RDP*, pp. 2-8.

Upcoming articles in the next issue of *RDP* include:

- Characteristics of the nonmetro working poor.
- The effects of tax reform changes on rural municipal bonds.
- How will small towns survive the 1980's?
- An analysis of the recent surge in rural consumer debt.
- Transfer payments, e.g., social security, a growing source of income for nonmetro areas.
- How farming families fared after leaving farming in the 1980's.
- Economic strengths and weaknesses of nonmetro retirement communities.



The Tennessee Valley Authority Paradise Steam Plant in Kentucky.

IN THIS ISSUE

**RDP**

The October 1989 issue of *RDP* contains:

"Droughts Influence Settlement Patterns, Both Yesterday and Today," by Jane Porter, is discussed on page 35.

"Short-Term Poor Ill Served by Welfare Programs", by Robert Hoppe, is discussed on page 31.

"Linking Natural Resource Policies with Rural Development Goals," by Roy Carricker. "Cross-compliance," a provision enacted in 1985 farm legislation, tried to ensure that the Government's agricultural objectives did not conflict with its environmental objectives. A similar notion might be worth trying in terms of the Nation's rural development and environmental goals.

"Drought Effects on Rural Communities Vary by Strength of Local Nonfarm Economy," by Mindy Petrulis, Judith Sommer, and Fred Hines, is discussed on page 28.

"Who Helps Small Manufacturing Firms Get Started?," by Ruth Young and Joe Francis. Startup firms get help from a number of sources, one of the most important being the firm where the startup's founder worked before. Government programs, Federal, State, and local, helped about half the startups in 10 counties in New York State.

"1988 Drought Did Not Dry Up Credit," by Gregory Gajewski and Douglas Duncan, is discussed on page 20.

"Southern Communities and Workers Benefit When Rural Factories Automate," by Stuart Rosenfeld, Emil Malizia, and Marybeth Dugan. Automation does not necessarily lead to job losses, but neither does it seem to lead to better pay for the workers, according to surveyed southern manufacturers. Nonetheless, automation, by increasing activity, efficiency, and sometimes number of workers, along with upgrading the kind of work done (even without pay increases), usually gives a boost to the local economy.

"Improvements in Well-Being in Virginia Coalfields Hampered by Low and Unstable Income," by Thomas Johnson, David Kraybill, and Brady Deaton. Why do Virginia's coal counties lag so far behind the rest of the State's counties in levels of well-being? Even behind counties with similar income levels? Income instability seems to be a big factor. With unstable income, people act as though they have less money than they actually do.

*Rural Indicators:* "Unemployment Trends Show Economic Recovery for Some Rural Areas; Little Improvement for Others", by Tim Parker and Leslie Whitener (see page 32).

*Book Reviews and Short Subjects*, including "How States Adapted to Federal Aid Cuts"; "How Little is Small Local Government?"; Farmers Can Profit from Novel Products"; Small Firms Don't Grow Like Cows"; "Startups That Buck the Odds"; and "Public Service Developments in the 1980's".

## Personnel

J. Norman Reid was recently named Deputy Director for Rural Development. In his new position, Norm will provide overall direction to ARED's research on rural economic and social trends and their public policy implications. He will also undertake special assignments for the Office of the Director.



Norman Reid

Since he joined ERS in 1976, Norm has authored over 60 works on rural economic and social trends, rural development policy, enterprise development, public infrastructure, Federal aid programs, and local government finances and service delivery. Prior to his promotion, he was Chief of the Rural Business and Government Branch. He had also headed the State and Local Government Section. He has also undertaken a number of special assignments for the agency. Most recently, he served on USDA's Rural Revitalization Task Force and was principal author of its final report, *A Hard Look at USDA's Rural Development Programs*. He has received four ERS Administrator's Special Merit Awards and four Certificates of Merit.

Before joining ERS, Norm was Assistant Director of the Illinois Commission on Intergovernmental Cooperation, a state legislative research agency. He received his Ph.D. in political science from the University of Illinois-Urbana in 1975 and has taught political science at several colleges and universities.

Kimberley Wood has joined the Director's Office as secretary to the Associate Director. Marjorie Carroll has become the new secretary in the Administrative Office.

## FARM SECTOR FINANCIAL ANALYSIS BRANCH

### View from the Branch

by Bob McElroy

The Farm Sector Financial Analysis Branch started the New Year with its annual FCRS training schools. This year's schools were held the second and fourth weeks of January in Clearwater, FL and Reno, NV. FSFA staff attending the schools were Jim Johnson, Mary Ahearn, Mir Ali, Dave Bunker, Charlie Barnard, Robert Dismukes, Dargan Glaze, Ken Mathews, Bill McBride, Mitch Morehart, Jim Ryan, and Mike Salassi. Commodity Economics Division (CED) and Resources and Technology Division (RTD) staff also attended.

Wheat, tobacco, dairy, citrus, and onions are the special commodities on this year's FCRS. This is the first time that fruits and vegetables have been covered in the survey. The Specialty Agriculture Branch of CED has designed those portions of the questionnaires and taught those parts at the schools. The general financial sections of the questionnaire, of course, were also included. The survey will be conducted in March and data will be available for analysis in June.

The FCRS is gaining in importance as a major data source for agricultural economics research. In this age of tight budgets, more and more of our data "eggs" are being put into this survey basket. Not only does FSFA use the data for financial analyses, but also GAO, OMB, USDA's Assistant Secretary for Economics, and several Land Grant Universities. Within ERS, RTD has been a major user. Some of RTD's studies have looked at technical efficiency by chemical-use level, the extent of technical inefficiency under crop-sharing contracts, and cross sectional demand for nitrogen, to name a few. CED is using the data to analyze the use of crop insurance in response to an OMB request. We invite all researchers to talk with Dave Bunker about how the FCRS might aid in their projects.

The *Agricultural Income and Finance Situation & Outlook Report* was released in December. The financial outlook for 1990 is one of stability. Net cash income will probably remain between \$52 and \$57 billion while net farm income could fall 2 to 5 percent. Early forecasts show steady production expenses and climbing cash receipts. Crop receipts may increase 5 percent over the \$75 billion forecast for 1989. Livestock cash receipts are forecast to stabilize at about 1 percent below 1989's \$83 billion. Farm asset and equity values should go up 4 to 5 percent but debt will increase only on the order of 1 percent.

The report also includes three special articles, which are discussed on page 15.

The Branch is sorry to announce that Greg Hanson will be leaving this summer. He will be taking a position in extension finance at Penn State U. Greg has been a real asset to both the branch and the agency for five years, serving as head of the Economic Indicators Research and Forecasts Section. He has authored numerous reports and papers and has served on many committees. While we are sorry to lose Greg, we wish him well in his new position and hope to keep in touch. Stop by and see Greg when you get a chance.

### Publications

*Farm Financial Conditions, by Region, January 1, 1989* (AIB-577), by Greg Hanson, Dave Bunker, and Jim Johnson provides comparisons of income and financial conditions in five regions for 1985-88. 1988 results were mixed, in part due to the drought. Net cash farm income rose in the Southeast, South-Central, and West, but declined in the Midwest and the Northeast, where dairy farms had higher feed costs and lower milk receipts. Farm assets declined in value in the Southeast and South-Central regions but increased in all others.

The report also discusses differences between commercial farms, those with sales of more than \$40,000, and smaller farms. Off-farm income is extremely important to small farms. Their average net cash farm income in 1988 was a negative \$600, while their average off-farm income was \$32,610. Over two-thirds of the farms covered in the FCRS sold less than \$40,000 in 1988 and accounted for less than 10 percent of gross cash farm income.

#### Branch Activities & News

At the October meeting of the Committee on Financing Agriculture in a Changing Environment (NC-161) in St. Louis, Dave Bunker presented "The Extent of Recordkeeping By U.S. Farmers and Ranchers", coauthored with Jim Johnson and Mitch Morehart. USDA, and FSFA in particular, has made a major contribution in this area through its work on financial ratio benchmarks. The paper relates that record books were introduced 75 years ago to obtain farm business data for cost accounting studies that were intended to enhance farmers' profitability. Despite the emphasis placed on recordkeeping since then, farmers' disparate economic performance during the 1980's raises questions about the records maintained and how they are used in managerial decisions. One analyst has declared that "(t)he farm crisis was partly a consequence of decisions made by producers without a solid understanding of their finances." The paper also presents results of questions on record-keeping asked on the FCRS the last three years. In the general area of records, the consensus was that standardized forms help lenders more than farmers.

Jim Johnson, Don Seaborg (CED), and Leroy Hushak (Ohio State U.) presented a seminar, "Implications of the AAEA Data Survey for ERS", which discussed the results of the "Priorities for Data on Agriculture and Rural Areas" survey conducted by the Economic Statistics Committee (ESO) of the American Agricultural Economics Association. The survey was sponsored by 19 organizations including ERS. The project's general objective was to assemble comprehensive data about current and future data needs of agricultural and rural social scientists who are members of five professional associations. It asked what use these researchers made of 243 current and discontinued data sets and asked them to rank the importance of 43 "expected future issues". A paper presenting results by a number of characteristics has been prepared by Hushak, Wen Chern, and Luther Tweeten (all Ohio State U.). Mary Ahearn became chair of the ESO in August.

Jim Johnson, Bob McElroy, Mitch Morehart, and Diane Bertelsen hosted Guzin Yedikardesler from the Turkish Institute of Statistics in October. Yedikardesler has been studying agricultural survey statistics and methods as a part of NASS' international training program. He has a particular interest in the calculation of indices of prices paid and received by farmers. FSFA staff briefed Yedikardesler on the branch's work with NASS assembling data needed to measure farm financial performance and forecast income. FSFA develops prices paid and received forecasts as a part of its on-going income situation and outlook work.

## Farm Income Estimation Section

#### Research & Analysis

Section analysts are using new information on farm income and expense accounts from the recently released U.S. volume of the *1987 Census of Agriculture* to review published national-level estimates. Preliminary analysis of these data indicate that agricultural production expenses for 1987 and 1988 will be revised up between 2 and 3 percent. Smaller revisions may be necessary back to 1983, the year following the preceding Census. The increases in the production expenses estimates will result in lower net cash income from estimates published for 1987 and 1988. The effect on net income for the other years revised is uncertain at this point.

The Farm Income Section is also reviewing available statistics from the 1987 Census to support and refine state-level estimates of agricultural production expense and farm income accounts. Where applicable, components of production expenses from the *Census of Agriculture* are used directly. Revisions to national and State estimates will be published in the next scheduled releases of *Economic Indicators of the Farm Sector*.

Cheryl Johnson is preparing a historical publication that will present figures on farm income and expenses back to 1910, where available. The report will update figures contained in a previous historical publication.

#### Publications

**Economic Indicators of the Farm Sector: State Financial Summary, 1988** was released in October, 1989. The report contains several measures of farm income, farm sector balance sheets, and a detailed accounting of cash receipts from farm marketings by State. Tables 2 and 3 in the publication record the leading states for the major cash receipt commodities and list the top five commodities for each state. Linda Farmer coordinated the publication. Farm Income Estimation Section and Farm Financial Analysis Section staff prepared the report with help from the Data Service Center's computer analysts and editors from the Information Division. Working together, this team got the 1988 publication out one month sooner than the previous year and four months quicker than the 1986 edition.

"Top Farm Producers in 1988", in the December, 1989-January, 1990 issue of *Farmland*, carried U.S. maps showing the top ten States for ten commodities. The maps were based on data provided by Bob Williams.

## Economic Indicators Research and Forecasts Section

#### Publications

"Steady-State Farm Financials", by Greg Hanson and Duane Hacklander, in the January-February issue of *Agricultural Outlook*, discussed the outlook for farm income

given by Greg at the 1990 Outlook Conference. Greg's Outlook Conference paper was also the basis of the *Perspectives* section in the December, 1989-January, 1990 issue of *Farmline*. The *Perspectives* article also included Greg's observation that a trend could be developing toward a "three-income" farm family with two breadwinners who derive at least part of their gross income from nonfarm activities. Also, limits on Government payments and declines in crop target prices are prompting some high-output crop farms to diversify into broader crop-livestock mixes. Improved livestock returns are making "diversified superfarms" that are large enough to achieve economies of scale quite profitable.

*Operating Results of Dairy Farms Classified by Size: FCRS Data, United States, 1987* (AE Res 89-23, Cornell U.), by Diane Bertelsen and B.F. Stanton (Cornell U.), examines characteristics of farms where milk sales were 50 percent or more of total sales. Around 10 percent of farms in the 1987 FCRS, accounting for 95 percent of the milk produced, met this criterion. In general, operating margins increased with dairy farm size, but there was substantial variation within size groups. The variations within size classes were greater than variations across regions in the same size class. Average operating margins in herds of 18-300 cows are generally highest within a size class when the feed purchases as a percent of milk sales are lowest. Operating margin plus interest as a percent of farm assets held relatively steady between 8-11 percent across herd sizes from 36 to 600 cows. In their "Concluding Observation", the authors state that analysis of the dairy industry "will be most useful if more attention is given to impacts of policy change on farms of various sizes using different technologies and associated feeding systems. Regional differences are a result of these factors, not a reason for their existence."

The December issue of *Agricultural Income and Finance Situation and Outlook* contained three special articles by section members.

"Profitability of U.S. Dairy Farms", by Diane Bertelsen and Bud Stanton (Cornell U.), summarized their dairy farm publication discussed above.

"Financial Characteristics of 1988 Drought-Damaged Farms," by Jerry Whittaker analyzed the financial characteristics of farms in nine States in the upper Midwest most severely affected by the 1988 drought. Farms in these States received 70 percent of Federal crop damage payments and 40 percent of the livestock feed disaster

payments. Incomes dropped in these States while increasing in the others, but farms in both drought and nondrought regions continued to improve their financial position during the year.

In "Specialization in Farming - A 4-Year Synopsis", Bob Dubman discusses the results of his studies of specialized major crop and livestock farms during the last four years. Specialized farms have 50 percent of their value of production in one commodity and more than \$40,000 in gross revenue. He draws the conclusion that over this period specialized farming appears more financially sound at the close of 1988 than in the mid-1980's. Levels of net returns, debt repayment problems, and costs for specialized farms are comparable to other, nonspecialized, commercial-sized farms.

"Farmland: A Good Investment?", by Greg Hanson and Scott Irwin (Ohio State U.), appeared in the Fourth Quarter 1989 issue of *Choices*. The article discussed the land purchase/affordability model that has been designed to complement the existing theoretical models of prospective changes in land prices. It also gave an assessment of returns to farm assets relative to other investments.



Mixing winter wheat stubble into surface soil, near Pomeroy, WA.

## Papers Presented & Meetings Attended

Greg Hanson organized the October meeting of the Committee on Financing Agriculture in a Changing Environment (NC-161) in St. Louis and also served as moderator in the session on GATT and Trade Issues. A paper "The Extent of Recordkeeping By U.S. Farmers and Ranchers", presented by Dave Bunker at the meeting is described above in *Branch Activities & News*.

Greg also presented the "Farm Finance Outlook" at *Outlook '90*, the 66th Annual Agricultural Outlook Conference in November. He reported that most farmers will make some financial progress in 1990 because the sector is showing record commodity receipts, continued strong livestock profits, low crop stockpiles with strong exports, and stable farm expenses and incomes. Greg emphasized that U.S. agriculture is now a "steady-state economy". The stability expected in the farm economy during 1990 will result from several factors that tend to offset each other: higher crop production but lower fall prices; higher crop expenses but lower feed bills; and, higher total receipts but lower Government payments. Continued appreciation in land values will be the major factor in a 4 percent rise in farm assets. By the end of 1990, farmers will have recaptured nearly two-thirds of the equity lost in the mid-1980's, showing the breadth of the recent farm recovery. Nonreal estate assets should increase around \$2 billion, while crop inventories drop about \$1 billion.

A combination of higher prices and lower feed expenses currently puts the livestock complex in a strong returns environment. However, a cost/price squeeze could develop for cash grain producers, the one farm-type currently experiencing declining commodity prices. Two other negatives cast some shadows on the outlook: about 10 percent of commercial farmers remain financially vulnerable, and farmers are still critically dependent on Government commodity programs. Overall, though, farmers' financial position is now stronger than at any time since the mid-1970's as a result of cautious investing, effective cost control, increased cash financing, Government payments, and continued loan restructuring and debt write-offs.

The text of Greg's presentation will be published in the *Outlook Conference proceedings*.

## Briefings & Miscellaneous

B.F. (Bud) Stanton (Cornell U.) visited Greg Hanson and Mary Ahearn to continue work on development of alternative measures of farm size and value-added. Previous collaboration resulted in *Alternative Measures of Farm Output to Classify Farms by Size* (Tech. Bull. 1749, January, 1989). Greg, Mary, and Bud are currently analyzing data on the value of farm crop and livestock production for the five years 1984-88 as a candidate for measuring farm size. They have also begun initial work on several measures of value added and are sorting out treatment of items such as contract labor, depreciation and property taxes.

## Personnel

The section welcomed John Jinkins to the income forecasting project in October. John will be assisting in farm income forecasting as well as general financial research.

Currently John is involved in studying debt structure.



John Jinkins

John completed his undergraduate work in agronomy at the U. of Georgia. Upon graduation, he served as a Peace Corps volunteer in the highlands region of Guatemala. His major responsibility in Guatemala was to provide extension services to peasant farmers growing corn and black beans. John was a supervisor on several large vegetable operations in the Florida Everglades and the Rio Grande Valley in Texas after returning to the United States. The major crops he produced were lettuce, parsley, and seedling celery. After becoming more interested in the economic aspects of agriculture and rural economies, John enrolled at Texas A&M U. where he completed a Ph.D. in agricultural economics. While at Texas A&M, he conducted research on the eradication of the screwworm in Mexico and share leasing in the Texas Panhandle.

John and his wife Mireya have a seven year-old daughter, Lilly, and a eight month old daughter, Angie. All are enjoying life in Silver Spring, MD.

## Farm Financial Analysis Section

### Research & Analysis

With the release of the *1987 Census of Agriculture*, the related benchmarks used in estimating the balance sheets for the U.S. and the individual States are being updated. Data series are also being revised to bring them in line with the published Census data. For example, the per-acre land value for 1987 has been revised upwards about 12 percent. The sales classes between \$10,000 and \$100,000 were changed in the 1987 Census to \$10,000 to \$24,999, \$25,000 to \$49,999, and \$50,000 to \$99,999. Corresponding adjustments are being made in the section's balance sheet calculations by sales class. The extent of revisions in the benchmarks for this year's national and State indicator publications will depend on when data from the *Agricultural Economics and Land Ownership Survey (AELOS)* become available. This Census follow-on survey contains more detailed balance sheet information for operators and landlords.

### Meetings Attended & Papers Presented

Duane Hacklander presented his paper entitled "Farm Financial Outlook", at the Beltwide Cotton Conference in

Las Vegas, NV in January. The paper summarized the 1990 outlook from December's Outlook Conference.

## Farm Costs and Returns Section

### Research & Analysis

The Section's main focus over the next few months will be expanded analyses of the enterprise data, i.e., data on the production of individual crops, from recent FCRS'. The estimates of the costs of producing crops for 1986-88 have been completed and the annual *Economic Indicators of the Farm Sector: Costs of Production* will be published shortly. The section's staff have made special efforts to thoroughly explain the concepts, methods and data sources underlying the report. Forecasts of 1990 costs of production were published in the December *Agricultural Income and Finance Situation & Outlook Report*. Section staff are also working on several Agricultural Information Bulletin's that will focus on major crops, particularly cost-of-production distributions.

### Publications

*Financial Characteristics of U.S. Farms, January 1, 1989* (AIB 579), by Mitchell Morehart, James Johnson, and David Banker, presents a profile of farm businesses' net income, cash flow, assets, liabilities, and returns on investments. These data help identify the diversity in farm financial performance by size and tenure of operation, commodity specialization, and area of the country. According to the report, the overall financial conditions of farmers and ranchers remained similar to those in 1987, despite the 1988 drought, maintaining the trend toward improved economic performance since the mid-1980's. Average net income (profitability) rose slightly, but farms with positive incomes fell 3 percent and all economic size groups had fewer profitable farms. More farms had no outstanding liabilities, and farms with debt/asset ratios (solvency) above 0.40 fell 1 percent from 1987. Gauging overall financial position with a combination of income and debt/asset ratio, the share of vulnerable farms rose from 4.9 percent in 1987 to 5.3 percent in 1988. However, this number is still half that estimated for the mid-1980's.

"U.S. Farm Sector Weathers Storm, Builds Strength" in the December, 1989-January, 1990 issue of *Farmland* was based on the *Financial Characteristics* report. It also includes three boxes that discuss various aspects of the FCRS.

"Farmers Receive As Well as Give Useful Information" talks about the "Individual Farm Analysis" (IFA) reports that will be sent out to all participants in the 1989 FCRS who want one. IFA's list the actual data for a particular farm and compare it with averages for farms of similar size and type. Nearly 75% of the farmers in the pilot program said that the feedback was informative. The provision of IFA's is possible now because the Farm Level Budget Model calculates a "budget" for every farm in the survey. (See *What It Costs to Produce Agricultural Commodities* on page 7.)

"Survey Data Are 'Gold Mine' For Policymakers" shows how a number of people use FCRS results. One farm organization leader states that the most important use of the FCRS is in "formulating and modifying federal farm programs," while another uses it to help farmers with budgets, planning, and other aspects of farm management. An enumerator reports that farmers comment that they know more about their farms after the interview than before.

"Survey Logistics: 44 NASS Offices, 46 Days, 26,000 Farms" discusses the administration of the survey and points out that the results of the 1989 FCRS will be important in the 1990 farm bill deliberations. It also relates that many farmers and farm organizations take part in the planning process, a reciprocal arrangement that helps both survey designers and recipients of results.

### Papers Presented & Meetings Attended

The Section hosted the "Conference on the Costs of Producing Rice" on November 16-17. The purpose of the joint ERS-Land Grant University workshop was to exchange information on the data sources and methodology used by various institutions in estimating the costs and returns associated with producing rice. Economists from universities in the five major rice States attended the conference. ERS participants included Jim Johnson, Mary Ahern, Mike Salassi, David Harrington (OD) and Bob Robinson (OA).

Mike Salassi, along with economists from CED, met with representatives from the Japan External Trade Organization on December 18 to brief them on the production and marketing of rice in the United States. Mike will be traveling to Biloxi, MS in February to participate in the meeting of the Twenty-third Rice Technical Working Group. He will be serving as co-chairman of the Economics and Marketing Panel and will be presenting two papers: "A Regional Comparison of the Financial Structure of U.S. Rice Farms, 1984 and 1988," co-authored with Dargan Glaze, and "A Summary of Rice Production Practices from the 1988 Farm Costs and Returns Survey."

Researchers from the Section, using data from the 1987 Farm Costs and Returns Survey for cotton, presented three papers at the January meeting of the National Beltwide Cotton Conference in Las Vegas, NV:

"Characteristics of High and Low Cost Cotton Producers in the U.S." was presented by Dargan Glaze, who co-authored the paper with Mike Salassi and Ken Mathews. The paper examined cost distributions of U.S. cotton producers and analyzed the differences in farm characteristics and production practices of high and low cost producers.

"Implicit Nutrient Prices and Economics of Size in Cotton Fertilizer Use", by Ken Mathews, presented results of calculating implicit fertilizer nutrient prices for both dryland and irrigated cotton production for the U.S. and each of the four major cotton regions. The implicit dryland price for nitrogen for the U.S. was 16.3 cents per pound, phosphorus was 2.6 cents per pound, and potassium was 39.3 cents per

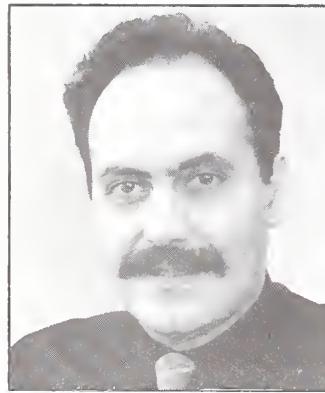
pound. Fertilizer nutrient prices associated with irrigation were higher than those for dryland applications. Applying both nitrogen and phosphorus appeared to reduce costs.

"Regional Differences in Fertilizer Use and Production Practices for Cotton Producers" was presented by **Mir Ali**, who co-authored the paper with **Dargan Glaze** and **Ken Mathews**. The authors found that fertilizer application was highest in the Southwest, which was reflected in much higher yields when combined with the high level of irrigation. The lower yields in the Southeast were due, in part, to less favorable growing conditions in the region. Land preparation operations in the Southeast were the least for any region. Custom operations do not explain all of the differences between the Southeast and other regions. The minimal land preparation and custom operations may indicate the adoption of minimum tillage technology in the Southeast. The Southwest makes wide use of custom services.

**Mary Ahearn** presented "Cost Distribution and Efficiency of Corn Production," co-authored with **Gerald Whitaker** and **Dargan Glaze**, at the January meeting of the Committee on Determinants of Size and Structure in Agriculture (NC-181) in Albuquerque, NM. The study divides corn producers into low-, middle-, and high-cost levels and examines production costs and farm and operator characteristics within each level. It also compares costs of producing corn and the technical efficiency of corn production by farm size.

#### Personnel

**Hisham El-Osta** joined the cost-of-production research program in October. Hisham will eventually focus on oat production but is currently working on a study of technical efficiencies in corn production. He is also composing a paper based on his dissertation for journal publication.



*Hisham El-Osta*

Agricultural Economics from the U. of Nebraska-Lincoln. His research interests are farm management and production with special emphasis on production efficiency and the theory of decision making.

Hisham, his wife Barb, and their kids Bassel and Diana live in Rockville, MD. His hobbies include reading and travel.

Following the birth of her first child, **Gwen Harris** went to half-time and then left the section to start a day-care business. FCRS members wish her well with the endeavor.

## FINANCE AND DEVELOPMENT POLICY BRANCH

### View from the Branch

by Pat Sullivan

As the discerning reader will have already noted, the branch has undergone a change since the last issue of the newsletter was published. In addition to agricultural and rural finance and tax issues, the branch now has responsibility for conducting research on rural government finance and rural development policy – hence the name change. (I've noticed that whenever you begin to look relaxed, a new and unexpected deadline often pops up on the horizon, and that whenever you get too proficient at ignoring deadlines, you get reorganized. I'd rather not speculate on what happens when you get used to reorganizations.) Luckily, along with this new-found responsibility comes a strong staff excited about working on these topics. With the dissolution of the Rural Business and Government Branch, the Government and Development Policy (GDP) Section, headed by **Dave Sears** and comprising **Bill Amt**, **Anicca Jansen**, **John Redman**, **Rick Reeder**, **Tom Rowley**, and **Nancy West**, has joined the branch *en masse*. And since we remain separated by four floors, the kicking, screaming, and gnashing of teeth are barely discernible.

But the reorganization isn't the only news worth reporting. Having recently completed our year-end progress review, this is a good time to congratulate the branch staff on their accomplishments. One of our major achievements during 1989 was hiring several highly qualified researchers. Indeed, for one full pay period, the branch was fully staffed – a first in the branch's 5-year history! But all good things must end, generally sooner than planned, so we are once again actively searching for superior economic researchers to fill several vacancies, subject to budgetary considerations. If you are such a person, or know of one, who finds research on State and local government finance, economic development, financial institutions, or Federal tax policy of utmost interest, keep us in mind.

Even with the disruptions caused by the comings and goings of the branch's staff, 1989 was a good year. The FDP Branch produced 11 monographs, 22 articles, 4 chapters, and 4 book reviews that were published during the fiscal year, in addition to 23 conference papers, 34 presentations, and a number of short analyses for the administration and/or Congress. In the process, 15 of the staff earned well-deserved awards for their efforts, amassing psychic income of a size that defies comprehension. During the year, the branch provided information on a wide range of topics, including the formation of Farmer Mac (the new secondary market in farm mortgages), the Farm Credit System's financial position, FmHA's farm and rural development loan programs, the geographic distribution of Federal outlays, Federal and State assistance to rural communities, rural public administration, the structure and operation of the rural banking system, the effects of tax reform on the farm

sector, and the impacts of the savings and loan crisis on rural capital, to mention a few.

But just as important as our finished products is the ongoing research that promises to provide much needed information in the months ahead. During 1989, we laid the groundwork for a first-ever evaluation of the participants in FmHA's guaranteed farm loan programs. We developed a survey which should provide timely and consistent information on the characteristics of State-sponsored farm credit programs. We've made significant strides in assembling a database to support rural development policy research and have begun a serious effort to evaluate rural development initiatives. In addition, we recently acquired data on rural business use of credit and we continue to improve and broaden our data on rural capital suppliers. If we can repeat our recent recruiting successes, the branch should be able to close the decade with a bang and enter the '90s in style. In keeping with the spirit of the holiday season, when these words were penned, that's my optimistic view.

#### Publications

"The Role of Federal Credit and Tax Policy in Agriculture", by Pat Sullivan and Ron Durst, was published as a chapter in *Agricultural-Food Policy Review: U.S. Agricultural Policies in a Changing World* (AER 620). In it, the authors state that credit and tax policies fueled overinvestment in the farm sector during the 1970's, contributing to the farm debt crisis of the 1980's. The resulting caution of farmers and lenders toward debt-financed investment should reduce the influence of credit policies on agricultural production in the 1990's. However, recent legislative actions may have polarized the distinction between creditworthy borrowers and marginal farm operators, making affordable credit more difficult for the latter to obtain. Also, tax reform has greatly reduced the role of Federal taxes in investment, production and financing decisions.

#### Branch Activities & News

The passage of time since enactment of the Tax Reform Act of 1986 has allowed Cliff Rossi to reexamine the effects of the new tax laws on rural tax-exempt bond financing. That topic is the theme of Cliff's article "Rural Tax-Exempts Weather Tax Reform" in the February 1990 issue of *Rural Development Perspectives*.

In mute testimony to how the political winds of change can render a research endeavor obsolete, Cliff completed "Estimating the Demand for Capital Gains Exclusions by Farm Sole Proprietorships" that is to become an ERS staff report. Cliff uses a limited dependent variable model (Tobit) to estimate the demand for exclusions. Several attributes including farm net profit, amount of investment tax credits claimed, farm enterprise, and level of itemized deductions influence the demand for capital gains exclusions.

Cliff Rossi has been monitoring the effect of the S&L crisis and reform legislation on rural capital delivery. One

paper, "Prospects for Rural Thrift Restructuring" has been submitted to the Federal Reserve Bank of Chicago for possible presentation at their "26th Bank Structure and Competition Conference". The paper assesses the impact of the S&L crisis on rural thrift credit delivery and the legislative response to it, the *Financial Institutions Reform, Recovery, and Enforcement Act of 1989* (FIRREA). The long-term effect is likely to be substantial structural change through consolidation. The effect on rural borrowers will depend on the likelihood and numbers of rural thrfts acquired, the importance of local banks and thrfts remaining in a service area, and the entry into local markets by outside financial institutions. Any loss of important local sources of capital may be offset to some extent by more competitive lending rates.

Related to the same topic, Cliff has submitted a paper, "Estimating Supply Response at Northeast Thrfts" to the Eastern Finance Association for presentation at their annual meetings. The paper estimates supply-response and input-demand relationships using a restricted translog profit function framework. Cliff finds that the translog specification performs well for healthy firms but not for weak institutions. For capital-sufficient S&L's, the net worth ratio was an important determinant of output-supply and input-demand response. The location variable was also important and showed that urban thrfts maintained more mortgage lending and deposit activity than rural S&L's.

"Rural Water and Sewer Infrastructure to Promote Economic Development" by Cliff Rossi, will be presented at a session on rural public finance at the Southern Regional Science Association's annual meeting in March, 1990. The paper points out that water and sewer systems can play an important role in the economic development of rural areas. It discusses the reasons for the limited allocation of funds for these capital items and what might be done to spur investment. In particular, it emphasizes that improved investment will not come solely from increased funding. A coherent policy for encouraging investment is required, including educating local leaders about its importance and showing them how investment can be financed.

Cliff recently met with Peggy Cuciti, editor of *The Public's Capital*, a joint infrastructure publication of the U. of Colorado and Harvard U. The meeting covered recent work at ERS on rural water and sewer system issues.

Pat Sullivan attended a 1-day seminar on "The European Community's Single Market Initiative: Dateline 1992," sponsored by the Society of Government Economists. As the ERS technical representative to the Southern Rural Development Center, Pat also attended the annual meeting of the SRDC's board of directors, held on the Mississippi State U. campus.

#### Personnel

Congratulations to Gwen Coleman and her husband on the birth of their son, Don Marcellus, on November 20, 1989.

## Agricultural Finance Section

### Research & Analysis

Ted Covey and David Bessler (Texas A&M U.) developed a time-series method of testing for a full causal relationship between economic variables. The method involves contrasting the out-of-sample forecast performance of two prequential models. The method, which forecasts one-step-ahead price distributions, will be used to test whether futures prices *prima facie* cause cash prices. The general method can be used to determine whether economic activities between two different markets are related. The results will be submitted to the *Review of Economics and Statistics* for publication.

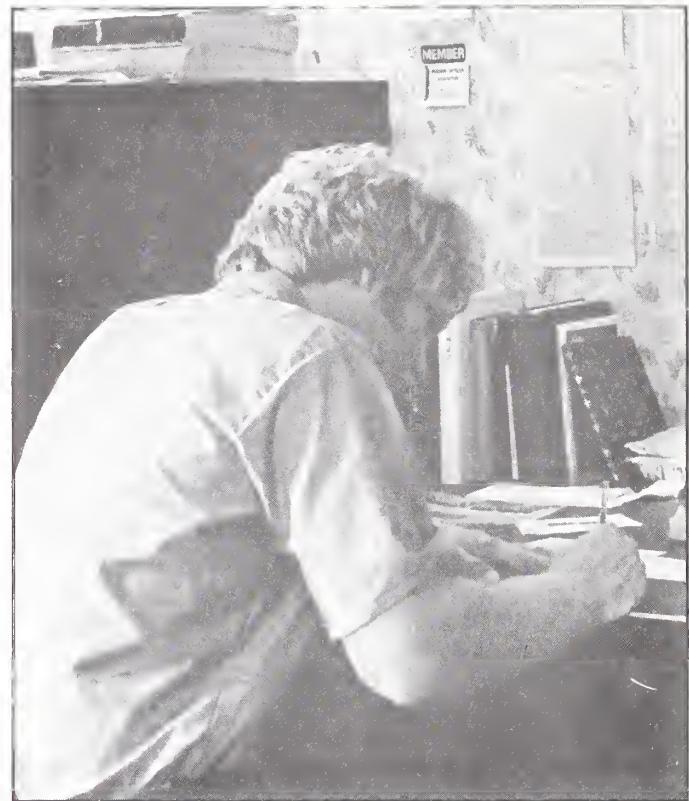
In support of the branch's work on the U.S./Canada Free Trade Agreement, a mail survey of State-sponsored farm credit programs has been authorized and administered to determine the dollar value of credit subsidies to the U.S. farm sector from State programs. The survey, currently being administered by Doug Duncan, Jim Mikesell, Pat Sullivan, and George Wallace, requests program information for 1987 and 1988. In addition to providing information for the annual subsidy calculations required by the Agreement, the survey responses will be used to develop a catalogue of State programs, highlighting the diversity of approaches used to support the credit needs of the farm sector.

Steve Koenig and Cliff Rossi are working on a project that characterizes commercial bank participants in the new Farmer Mac secondary market for agricultural loans by various financial, and nonfinancial attributes.

### Publications

"A Look at Farmers Leaving Farming" by Jerry Stam, was published in the October issue of *Agricultural Outlook*. During the 1980's, farmers went through a cost price squeeze, saw one-third of their land value evaporate, and had to work out a massive debt overhang. Yet USDA data indicate that farm numbers fell more in each of the 3 previous decades than in the 1980's. The percentage drop in farm numbers in the 1980's is comparable to the 1940's, and the percentage increase in average farm size is the lowest since the 1920's. Structural change in farming in the 1980's slowed because many of the productivity increases from mechanization and chemical use that resulted in larger farms, more concentrated production, and greater capitalization were completed by the end of the 1970's. Furthermore, a variety of Federal and State programs and policies forestalled many exits. The current outlook is for no new surge of farm exits. Some surveys show that farmers' bankruptcy filings are down by 50 percent from the decade's high in 1986.

The article also presents data on farm financial stress between 1982 and 1988 as reported by farm banks. Research on farm financial stress, farm exits, and public sector assistance for the farm sector in the 1980's will continue.



A farmer in Carrollton, Missouri working on his finances.

*Agricultural Finance* (Iowa State U. Press) was reviewed by Jerry Stam and William Herr (Southern Illinois U.) in the August issue of the *American Journal of Agricultural Economics*. This book, authored by Warren Lee, Michael Boehlje, Aaron Nelson, and William Murray, is the eighth edition of a college textbook first authored by Murray in 1941. The early editions were in a large measure responsible for the identity of agricultural finance as a subdiscipline within the agricultural economics profession.

"1988 Drought Did Not Dry Up Credit," by Douglas Duncan and Gregory Gajewski (Commodity Economics Division), appeared in the October 1988 issue of *Rural Development Perspectives*. The article investigates the effects of the 1988 drought on rural and agricultural lender performance. The drought's impact was less severe than anticipated, with evidence that ample credit was available to borrowers. Rural bank profits continued their recovery and loan-to-deposit ratios increased. Federal programs played an important part in overcoming drought-related losses.

"Ag Bank Performance, Deposit Feedback and Deregulation: Potential Impacts", a paper by Doug Duncan that he presented at the American Agricultural Economic Association meetings in summer, 1989, has been submitted to the *Journal of Agricultural Economics Research*. In the article, Doug uses a deterministic commercial bank simulation model to evaluate potential impacts of diminution or alteration of traditional agricultural bank loan-to-deposit feedback relationships. Bank-deposit costs have increased but the level of increase appears to vary according to feedback rate and deposit type.

## Papers Presented & Meetings Attended

"Interactions Among Federal Crop Insurance, Disaster Payments, and FmHA Disaster Loans" was presented by David Lins (U. of Illinois) in October at the annual meeting of the NC-161 regional research committee "Financing Agriculture in a Changing Environment: Macro, Market, Policy, and Management Issues." This paper, coauthored with Paul Hughes, was completed under the auspices of a cooperative research agreement with ERS. Results of Monte Carlo simulations for a typical grain farm in Illinois suggest several important conclusions about Federal programs that can be used to offset risk associated with adverse weather. First, when comparing farms with or without crop insurance, a relatively small difference exists in mean net income and net worth and their variances. However, crop insurance lowers both expected income and net worth and their variances. Low participation rates by Illinois farmers in Federal Crop Insurance (FCI) suggest that most farms do not believe the reduction in risk resulting from crop insurance is worth the reduction in income. Second, the existence of disaster loans, and particularly disaster assistance payments, seems to lower the incentive for participation in crop insurance. However, the net effect of these programs on the desirability of FCI appears to be very limited, and would likely offer only a minor inducement to change the decision to purchase or not purchase crop insurance. Finally, participation by farmers in ASCS set-aside programs does appear to alter incentives for participation in crop insurance. For farms with a low debt/asset (D/A) ratio, the effect is to make risk reduction through crop insurance more costly. For farmers with a higher debt/asset ratio, participation in ASCS set-aside programs lowers the relative cost of risk reduction through purchase of crop insurance.

## Upcoming Events

Section members will present two papers at the Southern Regional Science Associational Meetings in March, 1990.

Ted Covey and Ron Babula (NEH) will present the results they obtained using innovation accounting techniques to determine the influence of inflation on nominal agricultural interest rates. Vector autoregression (VAR) techniques enable researchers to test for dynamic interrelationships and whether variables may be considered empirically, rather than theoretically, exogenous within a system. The extent to which nominal interest rates mirror changes in anticipated inflation will give further evidence about the efficiency of capital markets for agricultural loans.

In "Farm Banks in the Energy Belt: A Double Whammy," Gregory Gajewski (CED), Douglas Duncan, and Ellen Burkhardt (formerly with FDP) evaluate the impact of the inability or failure of commercial banks to diversify loan assets in a region that experiences a local economic downturn. Banks in the "energy-belt" that specialized in energy-related lending performed poorly during the study period, while agricultural banks in the "energy-belt" that were more diversified performed better.

## Government and Development Policy Section

### Research & Analysis

**Tom Rowley and John Redman**, in cooperation with Jack Angle (Data Services Center), are currently studying changes in average per capita income inequality among States and among counties within States over the 1969-88 period. Their work will focus on the influence of these changes on relative metro and nonmetro per capita income within each State. Initial analysis indicates that, after a sharp decline in inequality across States between 1969 and 1979, the level of inequality increased steeply between 1979 and 1988 and is now at a higher level than in 1969. Movements of different groups of States will be examined to see which most influenced overall movement. A number of hypothetical scenarios will also be run to explore how changes in existing growth patterns might effect inequality through the mid-1990's.

**Scott Adams**, a Fall, 1989 intern working under the guidance of **John Redman**, developed an airport database that describes the air service that is available within each nonmetro county and within 50 miles of the county. These data will be used in the John and Tom Rowley's growth and stability study and should also prove useful in a variety of other future projects.

**Tom Rowley** and Shirley Porterfield (HRI) are collaborating on a study of the effects of telecommunications infrastructure on nonmetropolitan employment growth. Major components of the work will include an extensive literature review, data analysis to identify rural counties with heavy concentrations of telecommunications-intensive industries, and an in-depth examination of a small number of such counties.

**John Redman** and **Dave Sears** are working with the Council of State Policy and Planning Agencies (CSPA) on its project to provide technical assistance to midwestern States interested in rural development program design and implementation. On a pilot basis, ERS will play a supporting role in data development and assist in an analysis of a State's metro and nonmetro sectors. In November, Dave, John, and Mark Popovich of CSPA, met three times with several rural development officials of the State of Michigan in Lansing and East Lansing. Also attending some of these meetings were faculty and staff from Michigan State U. and staff of the Cooperative Extension Service. At the meetings, ERS and CSPA learned about the current status of local and state rural economic development programs in Michigan and offered ERS rural development databases and analyses for the State's use. Over the next several months, ERS and CSPA will be working with other Midwestern states on a comparable basis under the auspices of a grant from the Joyce Foundation to CSPA.

**John Redman** and **Dave Sears**, working with Molly Killian (HRI), are continuing their investigation of the economic and social factors associated with the growth and stability of earnings. Preliminary multiple regressions have been run for



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## February 1990

## March 1990

## April 1990

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## May 1990

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## December 1990

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## September 1990

## October 1990

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## December 1990

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nonmetropolitan counties for the 1979-86 period. One key finding, not surprisingly, is that a somewhat different set of characteristics is associated with growth than with stability. Thus, the activities that might be emphasized in an attempt to improve the likelihood of earnings growth of a rural area are not necessarily identical to those emphasized in pursuing stability. Further work will involve examining the growth and stability of commuting zones.

John Cranor and Raymond Scheele, researchers from Ball State U. working on a cooperative research agreement with ERS, recently completed their report on regulatory impacts on Indiana county and city governments. This project was carried out under the general guidance of Elliott Dubin (now ACIR). Their report, *Responses of Rural Local Officials to Federal and State Mandates*, found that most Indiana rural government officials thought that Federal mandates were not a problem. Follow-up questions suggest that this perception may be affected by lack of familiarity with mandates. When asked about specific mandates, such as handicapped access to public buildings, many local governments had made no effort at compliance, and nearly a third of town officials were not even aware of what was required. In the case of water and sewer requirements, perception of a problem was limited to those rural localities that had recently constructed water or sewer projects. Since only a small percentage of small towns are involved with these projects at any point in time, this reduced the perception of problems with mandates.

45 percent of the rural local officials thought Federal program cutbacks were a problem, while 22 percent thought Federal mandates were a problem. Almost half thought Federal cutbacks were getting worse, but only 16 percent thought Federal mandates were getting worse. Roughly half said that State limits on local tax authority were a problem, and 61 percent said State mandates in general were a problem. About 30 percent said both of these State problems were getting worse.

Working under an ERS cooperative research agreement, a group of rural sociologists from Virginia Polytechnic Institute (VPI), the U. of Georgia, and the U. of Vermont, are studying rural self-development, i.e., a home-grown approach to economic development, contrasted most starkly with smokestack-chasing. The research team is headed by Professor Jan Flora of VPI; Dave Sears is providing overall ERS guidance. Interesting results are emerging from preliminary analysis of information collected from 160 identified cases of self-development. In the typical project, over 200 jobs were created or saved through the self-development effort. Overall, the jobs were distributed among a variety of employment categories and less than a third were unskilled. Nearly nine out of ten jobs were taken by local residents rather than immigrants.

Under another cooperative research agreement, Professor Alvin Sokolow (U. of California-Davis) has been examining the role of local political leaders in the economic development process of small communities. Dave Sears has provided overall ERS guidance on the study. Based on 17 cases of "successful" economic development efforts, Sokolow has found that, while local elected officials and governments are heavily involved in the implementation of economic development activities in small communities, they seldom initiate such projects. Economic development activities are usually initiated, instead, by other community leaders.

Rick Reeder and Elliott Dubin wrote the "public services" section of a paper prepared for Organization for Economic Cooperation and Development's Experts Meeting on the Rural Services Project, which took place in Paris in October. The paper, entitled "Public and Private Services in the Rural United States: Trends and Issues," was co-authored by Norm Reid (OD) and Shirley Porterfield (HRI). Among the topics addressed in the paper are (1) the scope and delivery of public services in the U.S., (2) rural-urban differences in local public services, (3) public service trends, and (4) key public service issues for the 1990s.

The research team of Rick Reeder, Anicca Jansen, John Redman, Tom Rowley, and Bill Amt will be looking at available evidence (i.e., research studies, evaluations) on the effectiveness of specific approaches to rural economic development. Strong candidates for initial examination include enterprise zones and job training efforts. The study's purpose is to document for policy-makers what is known about the efficacy of several specific economic development actions, and to document for researchers areas where existing knowledge is particularly weak. The tentative plan is to issue a series of reports, one on each of the economic development approaches studied.



*The availability of public services can be a critical component of rural development efforts.*

As part of this research effort, **John Redman** has recently completed a first draft of a study of the Title II-A program of the Job Training Partnership Act, the part of the Act dealing with training for the economically disadvantaged. Preliminary analysis of the available data suggests that average program performance in nonmetro areas is comparable to or better than that in metro areas. Nonmetro areas also appear to benefit from funding allocation criteria which rely more heavily on relative unemployment rates than on the number of economically disadvantaged.

#### Publications

*State-Level Comparison of Metro and Nonmetro Economic Performance, 1979-86* (Staff Report AGES 89-60), co-authored by **John Redman** and **Tom Rowley**, is discussed in the **FORA** section.

#### Papers Presented & Meetings Attended

**Dave Sears** made a presentation on the growth and stability of nonmetro counties over the 1969-86 period to the colloquium of the Department of Geography and Regional Development of the U. of Arizona in October. The presentation was based on research conducted by Sears, **John Redman**, and **Molly Killian** (HRI).

At the annual research conference of the Association for Public Policy Analysis and Management, **Tom Rowley** presented a paper entitled "Prospects for State Involvement in Economic Development - Based on Patterns of Metro-Nonmetro Economic Growth." The paper was based on research conducted by Tom and **John Redman**.

At the "Partners in Rural Development Brown Bag Luncheon" in October, Michael Lambert, Associate Director of the National Home Study Council, presented "Home Study: 100 Years of Reaching Out". The council is a private group that reviews courses offered by correspondence schools to assess the qualifications of instructors, the quality of materials, and the appropriateness of courses' level of difficulty for the student population. People can take such courses for a number of reasons such as training for new careers or studying for State licensing exams. In Lambert's view, home-study programs should have considerable utility in rural areas because they are a relatively economical way of meeting educational objectives. Such programs eliminate the need to build expensive facilities that may serve only a few people in rural areas, and permit students to work full-time while taking courses at their own pace.

#### Upcoming Events

In February, ARED will host the third in a series of mini-conferences on the "Foundations of Rural Development." Organized by Norm Reid (OD), **Tom Rowley**, and **Dave Sears**, the conference topic will be physical infrastructure and its relationship to rural economic development. Researchers from academia and government will attend the two-day session. Previous conferences in the series focused on

entrepreneurship and education. A book incorporating material from each conference will be published at the end of the series.

**Rick Reeder** is organizing a session on rural public finance issues for the 1990s for the Southern Regional Science Association meetings in Washington, March 22-24. Tentative plans call for papers on: distribution of Federal spending and taxes among urban and rural states by Elliott Dubin (ACIR); rural school finance issues for the 1990's by Rick; and financing rural water systems by **Cliff Rossi**. **Pat Sullivan** is currently tagged as panel chair for this session.

#### Personnel

The section has recently lost one, but gained two, valuable employees. **Elliott Dubin** left ERS to join the U.S. Advisory Commission on Intergovernmental Relations (ACIR).

**Anicca Jansen** joined the section in August, 1989. She was recruited through OPM's Presidential Management Intern (PMI) Program. As a PMI, she will spend two years gaining experience in various management areas, including budgeting and information management.

Her current work includes analyzing economic development strategies, education finance, and local government spending. Ever lurking in the back of Anicca's mind is her dissertation research on factors that contribute to differences in local government spending, which she is doing in conjunction with an ERS study. She will receive a Ph.D. in City and Regional Planning from Cornell U., with minors in Economics and Agricultural Economics. She has a Master of Regional Planning from Cornell U. and a B.A. in International Relations from the U. of Minnesota.

Anicca grew up in southwestern Minnesota on a family farm that is still in operation and today is home for four generations of Jansens. In what seems like a previous life, she had several years nursing experience. Anicca feels that she is a living testimony for efforts to bring education to rural areas, having diplomas from a vocational-technical school, a community college, and two land-grant colleges.

Anicca currently lives with her husband, Jim Cohen, and 50 twenty-year-olds in the Cornell Center. Jim is employed there as a tutor and resident advisor while he puts the finishing touches on his dissertation - an evaluation of the agricultural districting program. Personal interests include refugee issues, which stems from work both in the U.S. and Thailand with Southeast Asian refugees, and watching "Cheers", an addiction which Anicca credits with getting her through graduate school.

William Amt joined the section as a graduate student intern in September. He is currently enrolled in the Master's degree program in Urban and Regional Planning at George Washington U. He feels that he is getting a rural and statistical perspective through his work at ERS.



William Amt

Prior to coming to ERS, Bill spent four years at the Academy for Educational Development, a non-profit international development organization, working on development communication and public health projects. While there, he traveled to Pakistan and the Philippines to do software training.

Bill grew up in Norwich, CT. He received his B.A. in Middle East Studies from the American U., in pursuit of which he spent his junior year abroad in Egypt. He now resides near the Eastern Market Metro station and enjoys various couch potato activities.

## Rural Finance and Tax Section

### Research

Jim McGlone has been analyzing results from the National Federation of Independent Businesses' 1987 survey of small businesses in an effort to distinguish the rural non-farm business sector from the metropolitan business sector. Preliminary review of the data seems to indicate, not surprisingly, that the primary distinction of the rural business sector is its "smallness" relative to the metropolitan business sector. An unexpected result is that this smallness is manifest not only in terms of gross sales and number of employees, but also in terms of diversity of types of businesses and a much closer relationship between businesses and banks in the rural economy. These types of smallness are interesting since each has different implications for the cost and availability of capital for rural non-farm businesses. Hopefully further analysis of this data and data from additional surveys, when they become available, will clarify which aspect of the rural sector dominates business activity.

### Publications

*Nonmetro, Metro, and U.S. Bank Operating Statistics, 1986* (Statistical Bulletin 787), by Jim Mikesell, documents that the financial condition of banks, both nonmetro and metro, generally deteriorated in 1986. Based on weighted statistics, which treat banks as an aggregate and may be dominated by a few large banks, aggregate profits for all U.S. banks fell 9 percent, expenditures to protect against upcoming loan losses rose 14 percent, and levels of problem loans rose 3 percent. Banks in the West and South had the lowest profits, the most problem loans, and the most loan losses in 1986, partly

stemming from the troubled energy sector. Metro and nonmetro banks did not equally share this conditions. Differences in both the level and dynamics of change for metro and nonmetro operations appear when comparing all banks and when comparing narrow classifications such as bank size, loan and capital problems, local economic base (agricultural or energy), market extension, and regions. This report presents weighted and unweighted operating statistics for nonmetro, metro, and all U.S. banks for 1986, and comparisons with 1985.

"Primer on Farm Policy", Don Lerman's review of the book *How the U.S. Got Into Agriculture and Why It Can't Get Out*, by David Rapp, appeared in the October 1989 issue of *Rural Development Perspectives*. The author is a budget and economic policy reporter for the *Congressional Quarterly Weekly Report*. Don thinks that the book should provide readers with a broad understanding of the political and economic forces behind U.S. farm policy and an overview of how farm programs operate. The major contribution of the work is its detailed portrayal of the process of making farm policy.

### Papers Presented & Meetings Attended

Ron Durst recently attended a conference concerning recent developments in agricultural taxation in Falls Church, VA. Conference speakers included leading agricultural tax experts on such topics as farm accounting methods, estate and gift tax issues, and tax problems associated with farm bankruptcy and the discharge of farm debt.

### Upcoming Events

Ron Durst and Cliff Rossi will present a paper, "Alternatives for Taxing Capital Gains: Effects on Farmland," at the Southern Agricultural Economics Association's annual meeting in Little Rock, AR. The increase in the tax rate on long-term capital gains produced by the Tax Reform Act of 1986 has led to a number of proposals for restoring preferential tax treatment for capital gains. The paper compares effective tax rates for real capital gains and examines the impact on bid prices for land under current law and two preferential tax treatment alternatives. Results suggest that an exclusion for long-term capital gains performs poorly in compensating for the effect of inflation. In addition, indexing capital assets for inflation would produce the lowest per-acre tax on unrealized capital gains for current farmland owners.

### Personnel

Steve Hiemstra resigned from ERS to accept a position with the Farm Credit Administration. Steve had been with ERS since July, 1983. We wish him well in his new position.

Deano Hagerman resigned from ERS to pursue business opportunities in Phoenix, AZ. Deano had been with ERS since July, 1984.

# FARM AND RURAL ECONOMY BRANCH

## View from the Branch

by Tom Carlin

*The Family Farm Report*, an annual report to Congress on the status of the family farm, occupied much of Sara Mazie's and my time during 1989. (See the article on the report on page 6.) Several ARED researchers prepared chapters in this report including FRE economists **Donn Reimund** and **Nora Brooks**. They examined the structure of the farming sector as we begin the decade of the 1990's (either this year or next depending on which year the decade "really" begins) using, in part, preliminary data from the *1987 Census of Agriculture*. Their analysis concludes that the long-term trends of declining farm numbers and land in farms and increasing farm size continued through the 1980's and shows little prospect of reversing in the near future.

The availability of the 1987 Census data provides FRE researchers an opportunity to examine national and regional changes in farm structure that occurred during the 1980's and to suggest what the farm sector might look like by the year 2000. It will also facilitate our completing the delineation of types-of-farming areas of the United States. When the delineation is completed, staff will analyze differences in the economic performance of the farm sector, farm-related industries and the overall economy for each type-of-farming region. With this research in place, we are in a better position to assess the vulnerability of different rural economies to major adjustments in the structure of agriculture and agricultural policies.

On another front, FRE economists were actively involved with NASS statisticians in preparing an estimate of the need for agricultural labor during FY-1990 as required by the Immigration Reform and Control Act of 1986. Information on the need for agricultural labor determined by USDA and the supply of labor determined by the Department of Labor (DOL) is used to calculate the number of aliens who may be authorized for admission to the United States as replacement agricultural workers to perform seasonal farm work. After the USDA and DOL survey data were collected and analyzed, the final estimate of the "shortage number" for FY-1990 was zero. Except in emergency situations, this means that no aliens will lawfully be admitted for temporary residence in the United States to perform seasonal agricultural work during 1990. ERS and NASS staff are now undertaking data collection critical for making the FY-1991 shortage estimate later this year. This process is scheduled to continue through FY-1993.

Over the last few years, FRE economist **Robert Coltrane** has provided Departmental leadership on issues related to farm labor. Robert has published extensively on agricultural labor issues, provides leadership to national groups that focus on farm labor, and provides economic advice and counsel on these issues to the Department's senior policy

officials. Robert was recently promoted in recognition of these accomplishments and the important role he plays in the Department. I thank Robert for his important contributions to ERS's and the Department's mission.

**Jim Duffield**, an economist in our agricultural labor research program, was also promoted. Jim's recent research has focused on developing an econometric model of the farm labor market in order to measure the effect that wages, farm commodity prices, and other factors have on farm labor supply and demand. [Editor's note: The development of the model was featured in the Fall 1989 **FORA** section.]

We have had a number of personnel changes in FRE since the last newsletter. **Jane Cox**, former economist with our agricultural labor program, has transferred to the USDA's Food and Nutrition Service as a policy analyst in the Program Development Division, Food Stamp Programs. **Robert Munoz**, former sociologist with our longitudinal farm household analysis work, has resigned from ERS to take a teaching position at Gardner Webb College in Boiling Springs, North Carolina. I thank them both for their contributions to our research program.

I welcome two new employees to FRE. **Judy Kalbacher**, a geographer who specialized in farm and rural population studies, transferred to FRE from our Human Resources and Industry Branch. Judy will be working in our Farm Structure Section. **Alex Majchrowicz**, an agricultural economist who has recently been studying employment change in nonmetro counties, transferred to FRE from our former Rural Business and Government Branch. Alex will be working in our Agriculture and Community Linkages Section.

As noted below, **Bernal Green** has announced his intention to retire in March 1990. Bernal has had a very productive career in ERS contributing valuable insights into a variety of important public policy issues including rural poverty, aging, health care, education, farm structure, and rural economic structure and development. Those of us who know Bernal realize he is not really retiring but changing careers. I thank Bernal for his many contributions over the years and wish he and Jean best wishes as they start their new career in Alpena, AR.

## Branch Activities & News

**Vic Oliveira** and **Judy Kalbacher** met with Dr. Nikolai G. Pervov, the Soviet Union's agricultural attache, in October. The purpose of the meeting was to discuss the number of farmworkers in the United States. Dr. Pervov was confused over the different estimates of agricultural employment reported in various USDA reports (e.g., the *Agricultural Work Force* report, the *Rural Farm Population* report, the *Farm Labor* series, and the *Fact Book of U.S. Agriculture*). The different methodology and concepts behind the various estimates were discussed. Other issues addressed included the composition of the farm work force (i.e., operator, hired, or unpaid), and whether the farmworkers worked full- or part-time in agriculture. Dr. Pervov also expressed interest in obtaining the number of persons in the United States

working in agricultural industries including processing, transportation, etc. He will be given estimates of those figures (from the *Economic Indicators of the Farm Sector* series) in a follow-up telephone call.

## Agriculture and Community Linkages Section

### Publications

**Retirement Counties: A Development Option For The Nineties** (Special Report 134, Arkansas Experiment Station in cooperation with ERS), by **Bernal Green** (stationed at the U. of Arkansas) and Mary Jo Schneider (U.of Arkansas), was published in January. The authors state that nonmetro counties should look more closely at bolstering their local economies by attracting retirees. Older people used to be considered economic liabilities that strained resources. Because transfer payments and investment income have become a greater proportion of of total personal income, however, areas where retirees have located are shielded against economic recession. The report analyzes why the top one-third of destination-retirement counties in the U.S. have been the most attractive to retirees.

Dr. David L. Barkley (Clemson U.) plans to include the publication, which was written at his request, as a chapter in a forthcoming book that the Western Rural Development Center is sponsoring under the project title, "Reindustrialization of Nonmetro Areas: A Critical Appraisal of the Alternatives". Dr. Barkley has also invited the contributors to the project to meet in Molokai, HI, February 20-25, 1990, to discuss the chapters as well as have a joint meeting with the Western Regional Science Association.

"Drought Effects on Rural Communities Vary by Strength of Local Nonfarm Economy", by **Mindy Petrusis, Judith Sommer, and Fred Hines**, was published in the October 1989 issue of *Rural Development Perspectives*. Unusually hot and dry weather is an ever-present threat to agriculture and, in turn, to rural communities which rely on the local agricultural sector for prosperity and economic well-being. The article examines how drought affected five different geographic areas that experienced extreme drought during the summer of 1988. It illustrates that the impact of a drought depends on the structure of the local economy, namely the importance of farming to the overall economy of the area, the diversity of the area's economy, the types of farming enterprises that dominate the area, and the distribution of Federal drought assistance payments. 1988 drought losses spread to the nonfarm sector the most where the economy was most dependent on farming. The better a rural community serves its neighboring farmers, the more it suffers with them from setbacks like drought.

### Papers Presented & Meetings Attended

**Fred Hines** attended an initial meeting of the Agricultural Policy Task Force of the Great Plains Agricultural Council, January 4-5, in Dallas, TX. The task force hopes to have representatives from each of the 10 states of the Great Plains

region, as well as from USDA agencies such as ERS, the Soil Conservation Service, and the Extension Service. The task force will conduct research and develop educational programs on the consequences of alternative policy for the Great Plains. Its work will address the region's uniqueness in terms of climate conditions, resource base, dispersed population-limited farm enterprise options and lack of off-farm employment opportunities for farmers. It will also assess how this uniqueness alters the impacts of farm policy on the Great Plains farm sectors, farm-dependent communities, and the region as a whole.

The task force's two teams will concentrate on: (1) the economic impacts of more open world trade on the Great Plains, and (2) the relationship between agricultural rural communities in the Great Plains. Fred will be a member of the second team, whose work will complement his section's studies of regional differences in farm-nonfarm linkages.

**Judith Sommer and Mindy Petrusis** attended a Micro IMPLAN workshop at the U. of Minnesota. IMPLAN (Impact Analysis for Planning) is a microcomputer-based system for constructing regional economic accounts and input-output tables. Judy and Mindy, in cooperation with **Fred Hines** and Lio-Hsiung Chung (Soil Conservation Service), are currently using IMPLAN to (1) estimate impacts of the Conservation Reserve Program on Rural Communities and (2) determine regional effects of the proposed federal initiative -*Trees for U.S.*

### Personnel

**Bernal Green** will retire from ERS March 10, 1990, having completed 30 years with the agency (including a two-year tour with the U.S. Army). Bernal and his father, who is 81, are feeder calf producers on a 150-cow enterprise located in Boone County, Arkansas. Bernal has spent weekends restoring his old farm house, repairing barns and corrals, and building fences. The Ozarks setting is quite scenic and Bernal believes that he can make the transition without too much reduction in his sense of well-being.

## Farm Structure Section

### Research & Analysis

**Fred Gale and Neal Peterson** are working with a longitudinal data file created at the Census Bureau by matching all individual farm records from the 1978 and 1982 *Census of Agriculture*. The file contains information on farm size, operator age, Standard Industrial Codes (SIC), and acres irrigated for 1982 and 1978. Neal and Fred are currently generating cross-tabulations of farm-size classes between the two years State by State. These cross-tabs will permit analysis of farm size growth, entry and exit, and will be used to further develop models of structural change in agriculture. 1987 records will eventually be merged into the file as well. Comparisons of the cross-tabulations for 1978-82 and 1982-87 should provide valuable information about how the mid-1980's farm crisis affected the farm economy.

In *Overview of Farm Structural Trends in the 1980's* (forthcoming AIB), Nora Brooks, Judy Kalbacher and Donn Reimund examine farm structural patterns in the Nation's farm economy, as it recovers from the farm recession of the 1980's, using data from the 1987 *Census of Agriculture*. Despite the severe financial stress and declining asset values of the 1980's, the rates of decline in farm numbers and increase in farm size followed historical patterns. The 1987 Census recorded 2.1 million farms, a 6.8 percent drop since the 1982 Census. Farmland fell 2.3 percent, from 986.8 to 964.5 million acres, over the same period. Because of the lower rate of loss in farmland than in farm numbers, average farm size increased from 440 acres to 462 acres.

Another major finding is that, taken together, changes in acre size and sales class distributions support the concept of an emerging dual structure in U.S. agriculture. Both measures show farm losses were concentrated in the middle of the farm-size distribution, with much lower rates at the small and large farm-size ends. The report also contains detail on regional variation in the recent farm loss and trends in the values of land, buildings, machinery, equipment, and some operator characteristics.

*A Single Equation Approach to Estimating Nonstationary Markov Matrices: The Case of U.S. Agriculture 1974-78*, by Neal Peterson, is scheduled for release in early 1990. The paper examines the problem of analyzing change in the size distribution of U.S. farms as a nonstationary Markov process. The usefulness of the Markov approach lies in its potential

for relating transition probabilities to economic and demographic forces. However, normal practice, which uses multinomial logit regression methods, encounters major problems with the very small probabilities associated with rare events (concentrated in the off-diagonal corners) and with the limited degrees of freedom inherent in U.S. longitudinal data, which contain very few time periods. Peterson addresses these problems by reconceptualizing the Markov matrix as a 3-dimensional surface that may be conveniently fitted to a single equation of an exponential polynomial form. In the process, the data is transformed and a method invented for orthogonalizing polynomial terms of two variables. The demonstration of the method uses a model that includes three demographic variables (the percentage of operators over 65, under 35, and working off-farm more than 200 days) and three economic variables (rates of change in total sales, value of land and buildings, and per capita income of nonfarm families). The results are very good, with a high  $R^2$  (.9857) and many highly significant coefficients. The chosen demographic variables prove to be of greater consequence in explaining structural change than the chosen economic variables.

"Women's Contribution to Farming", Judy Kalbacher's review of *Women and Farming: Changing Roles, Changing Structures*, appeared in the October 1989 issue of *Rural Development Perspectives*. Judy comments that the work "helps clarify farm women's family, farm, and community roles" and will give readers an appreciation of women's contributions to agricultural development and the pressures contemporary farm women face in fulfilling all of their roles on and off the farm.



This bucolic stretch of Sligo Creek in Montgomery County, MD, just north of Washington, DC, illustrates the appeal of "rural settings" to urban dwellers.

## Agricultural Labor and Household Well-Being Section

### Publications

*Involuntary Exits From Farming: Evidence from Four Studies* (AER 625), by Susan Bentley and 10 other researchers, describes the consequences of leaving farming because of financial problems. The report is based on analysis of four independent case studies in all or parts of Texas, North Dakota, Georgia, and Wisconsin. Data was obtained from panel surveys (in which the same farm operator was interviewed more than once) conducted in each State in the early or middle 1980's.

The studies showed that between 2 and 3.4 percent of the farmers involuntarily left farming each year. Farm exit was spread broadly among operators of diverse sizes and types of farms in the four studies. The authors also found that the consequences of "involuntary exit" from farming were varied and somewhat less negative than early press reports indicated. The report noted that, on average, farmers who were forced out under financial stress had significantly higher household incomes after exit than those earned from farming. Many former farm operators still own all or some of their farmland, and nearly all found other jobs. Most exits remained in their home counties. However, many retained high debt loads and tax liabilities from their farm operations.

rural business formation and change. (And she knows computer graphics better than any of the rest of us.)

A second advantage will be the ability to develop a fuller understanding of recent rural conditions and trends. Alex Majchrowicz and Martha have been tracking the industrial sources and locational patterns of rural employment growth using establishment-based data from the Bureau of Economic Analysis. Since Alex's final destination after the reorganization was the Farm and Rural Economy Branch, Martha is taking over the work. Combining her perspective with that of **Leslie Whitener** and **Tim Parker**, who work with Current Population Survey (CPS) and Bureau of Labor Statistics (BLS) establishment survey data, should give us a very good picture of what is happening in rural areas. This is not just a question of analytic perspectives. Recent reports and newspaper articles on the declining reliability of federal statistics highlight the importance of using a variety of data sources to analyze current trends.

Manufacturing needs revisiting. While services may provide almost all the net employment gain, manufacturing is critical to our national economic base, and it is especially important in rural areas. **Chuck Schmidt** is new to ERS, but it is clear that his work on trade-sensitive manufacturing in rural and urban areas will be a third advantage to the branch. **Tonya Sullivan**, a very pleasant person with increasing computer skills, is still another advantage. She is the new section's secretary.

With the merger creating the Rural Employment Section, some people moved offices. The Income and Well-Being Section moved upstairs to room 434, while new members of the Rural Employment Section moved downstairs to room 340. (See [ARED DIRECTORY](#) for new numbers.) **Gwen Matlock** smoothly organized the move. The "Computer Committee": **Margaret Butler**, **Linda Ghelfi**, **Tim Parker**, **Shirley Porterfield**, and **Leslie Whitener** (Chair) decided what open-area PCs and accessories went where (with a few given constraints).

We are more culturally enriched as **Linda Ghelfi**, **Carolyn Rogers**, and **Ruy Teixeira** have bought a number of prints which they are framing for the branch walls. So far they have several works up by Claude Monet and Georgia O'Keefe, and there are more prints to come. Also in the plans are some large, hardy plants that will be able to survive in some of the interior open areas. The money for the project has come largely from **Bob Hoppe**'s extremely well-managed coffee fund. (Note: no public funds are involved, and these people work uncompensated overtime.)

And, we are fatter from our Holiday party. **Liz Dagata**, **Gwen Matlock**, **Paul Swaim**, **Linda Swanson**, (Chair) and **Alex Majchrowicz**, organized a great catered feast, complete with cheesecake. **Ruy Teixeira** brought in his seasonal rock music to add to the festive air. People from the Director's Office came along with the branch. And there were some very charming children. Of special note: Joanne Harrington (David's wife) made (again) some of the best Christmas cookies ever.

## HUMAN RESOURCES AND INDUSTRY BRANCH

### View from the Branch

by David McGranahan

This season finds us a bigger, more culturally enriched, and fatter branch. We are bigger because part of the late Rural Business and Government Branch, viz., the Business and Industry Section, which was led by Herman Bluestone for many years, is now part of the Human Resources and Industry Branch. It has been merged, at least temporarily, with the Rural Labor Markets Section to create a very large Rural Employment Section.

The merger has definite advantages for the branch program. First, it brings into the program a great deal of knowledge about spatial patterns of industrial change. **Jim Miller** is practically a library on rural industrial and business development. He is analyzing the changing importance of small business formation for rural employment growth. **Shirley Porterfield**, expert on the potential contribution of service sector industries such as insurance to the local economic base, is now expanding her interests to investigate the importance of telecommunications infrastructure for rural development with **Tom Rowley** (FDP). **Martha Frederick** brings a geographer's approach to the study of

## Income and Well-Being Section

### Publications

"Short-Term Poor Ill Served by Welfare Programs," by Robert Hoppe was published in the October 1989 issue of *Rural Development Perspectives*. Using data from the *Survey of Income and Program Participation* (SIPP), Bob shows that about a third of the nonmetro population saw their income dip below the poverty level for at least one month in a recent year. Many of these short-term poor slip through the welfare safety net, because the current system was designed to serve those suffering longer periods of poverty. In formulating policy, these other poor also need to be remembered because they too suffer real hardship, especially if they are normally not far above the poverty level.

### Papers Presented & Meetings Attended

Peggy Ross and Robert Hoppe attended the 47th Professional Agricultural Workers Conference at Tuskegee U. in Alabama, December 3-5. Bob delivered a speech, "Poverty in Rural America: The Statistical Evidence" and served as a reference person at a working group on policy recommendations to help alleviate rural poverty. Peggy was a member of the program steering committee and served as facilitator for a working group considering policy needs that will help disadvantaged rural people and areas.

Two papers by Deborah Tootle are in progress.

"Dynamics of Underemployment in Rural Labor Markets", coauthored with Leann Tigges (U. of Georgia), will be presented at the 1990 meeting of the Southern Stratification Research Group in Louisville, KY, March 20. To explore the structural determinants of inadequate employment, the paper examines and compares the effects of labor supply and demand on the adequacy of employment in urban and rural labor market areas in the United States. Deborah and Leann focus in particular on the demand for labor. Since demand is determined by the process of capital accumulation, an understanding of the accumulation process should help to clarify the dynamics underlying inadequate employment. They argue that underemployment is largely a consequence of structural characteristics of local labor market areas, which generate differential opportunities for employment. Because of uneven development, they expect to find that conditions associated with inadequate employment will vary across urban and rural areas. In assessing the role of industrial and occupational structures in the generation of underemployment and investigating the distribution of differential opportunities for adequate employment across space, the paper also contributes to the extant literature theoretically, as well as empirically.

"Variation in the Effects of Public Assistance on Inequality: A Consequence of Uneven Development?", will be presented at the "Economic Restructuring and Inequality" session of the 1990 meeting of the Southern Sociological Society being held in Louisville, KY, March 21-25. In this paper, Deborah addresses the long-standing controversy

about the effects of public assistance on economic well-being. Proponents argue that public assistance reduces economic hardship. Detractors maintain that public assistance adversely affects the economy and that industrial development is a better solution. This paper analyzes the relative effects of public assistance and local industrial structure on income inequality, a relative measure of poverty, and economic development within local labor market areas (LMA's). Using LMA's as the unit of analysis enables better control of specific socioeconomic conditions. The paper also merges a theory of uneven development with a theory of the local State to examine the relationship and spatial variation of industrial structure and public assistance.

Deborah argues that variation in economic well-being is related to both local industrial structures and local control over provision of public assistance. Moreover, provision of public assistance is related to the local industrial structure. Her findings indicate that public assistance is associated with greater economic development and lower income inequality. She has also discovered some evidence that local provision of public assistance is related to local industrial structure.

### Personnel

Deborah Tootle joined the section in August, 1989, after completing a dissertation in Sociology at the U. of Georgia. Her research has long concentrated on disadvantaged

workers and the geographic distribution of earnings. She is particularly interested in how the social and economic conditions of local economies structure economic hardship. Among her current activities, Deborah is producing some publications from her dissertation on spatial variation in the effects of public assistance on three measures of economic development. She is also working on several papers with Leann Tigges (U. of

Georgia) concerning underemployment in rural areas. In addition to her research activities, she has organized an informal reading and discussion group within the branch to study geographic variation in economic development.

Deborah was attracted to ERS by the complementarity between the agency's research agenda and her educational background and interests in rural issues. She earned her B.S. degree from the College of Agriculture at Louisiana State U. Later on, however, she became more interested in social and economic structures and their consequences for workers. In 1986, she received an M.A. in Sociology at Tulane U. in New Orleans, LA, and then moved on to the U. of Georgia, where she was able to pursue both socioeconomic and rural research interests. While there, she received a Rural Policy Fellowship sponsored by the Rural Economic Policy Program of the Aspen Institute, for dissertation research.



A new building going up.

## Rural Employment Section

### Publications

"Unemployment Trends Show Economic Recovery For Some Rural Reas; Little Improvement For Others", by **Leslie Whitener** and **Timothy Parker**, was published in the *Rural Indicators* section of the October 1989 issue of *Rural Development Perspectives*. Rural areas are now making an economic comeback after the soaring unemployment rates and stagnant job growth of the early 1980's. However, nonmetro rates are still higher than metro rates, and, in contrast to metro rates, nonmetro unemployment rates have not yet fallen to their prerecession level. Moreover, improvements in the economy have not occurred equally across all nonmetro areas and many nonmetro areas continue to experience high levels of unemployment.

### Papers Presented & Meetings Attended

"Spatial Variations in the Growth and Stability of Rural Areas" was presented by **Molly Killian** at the Annual Research Conference of the Association for Public Policy Analysis and Management in Arlington, VA, November 4. The paper was based on research conducted by Molly, John Redman and Dave Sears (FDP).

In October, **Molly Killian**, **David McGranahan** and **Leslie Whitener** met with other participants in the USDA Cooperative Regional Project S-229, "The Changing Structure of Local Labor Markets in Nonmetropolitan Areas:

Causes, Consequences, and Policy Implications", to discuss research plans and progress. This regional project is beginning its second year and builds on the work of S-189, which developed the labor market area (LMA) classification currently used by ARED. The S-229 Project includes economists and sociologists from universities in 10 southern states, New York, New Jersey, Ohio, and Puerto Rico and from USDA in Washington. Molly was elected chair of the S-229 Project for 1989-90.

Participants in S-229 are now evaluating the feasibility and costs of updating the LMA classification when commuting data from the *1990 Census of Population* become available. In addition, project participants are examining changes in local labor markets over time, the determinants of inequality in local labor markets, and the implications of economic and industrial development strategies for local labor markets and the well-being of rural residents. Dick Long (OD), along with Murray Aborn (National Science Foundation), Andy Deseran (Louisiana State U.), and Pat Horan (U. of Georgia) addressed the group on the prospects and problems for local labor market area research in the 1990s. A four-member panel also discussed theoretical and conceptual issues in local labor market area research.

**Paul Swaim** attended the Allied Social Science Associations' annual meetings in Atlanta, December 27-30, and presented two papers jointly authored with Michael Podgursky (U. of Massachusetts). Both papers focus on the extent to which workers permanently displaced by shifts in labor demand move to new industries, occupations, or areas where new employment opportunities are being generated.

"Job Displacement and Labor Market Mobility" (presented at an Econometric Society session) focuses on an apparent conundrum: nearly 80 percent of displaced workers become reemployed in new Census industries or occupations despite the fact that those returning to their prior industry and occupation experience less unemployment and smaller wage reductions. The first part of the paper examines whether measurement error in the CPS data is generating spuriously high rates of mobility. Although some of the recorded industry and occupation moves are shown to be either spurious or rather trivial, more than half of the sample are truly reemployed in jobs that are rather different than their prior jobs.

Having confirmed high (although reduced) rates of industry and occupation mobility, the authors examine whether the returns to mobility are as negative as a simple comparison of movers and stayers suggests. They expected that the large personal economic losses of mobile workers were more the cause than the effect of industry and occupation changes, i.e., that workers changing industry and occupation would have done worse if they had confined their job search to the same industry and occupation. However, when Paul and Michael estimated a simultaneous model of mobility, reemployment, and reemployment earnings, the implied returns for mobility were even more negative than those suggested by simple tabulations.

"Job Displacement and Geographic Mobility" (presented at a Society of Government Economists session) conducts a similar analysis of geographic mobility following permanent displacement. In this case, however, the authors were able to compare 5-year migration behavior for the sample of displaced workers and a comparison group of nondisplaced workers. They find that displacement significantly increases migration rates, particularly for men, but that the effect is rather short-lived. Surprisingly, workers displaced in States with unusually high unemployment rates are no more likely to migrate to another State than are workers displaced in low unemployment States. Workers displaced in nonmetro labor markets are, however, more likely to make intrastate moves but not interstate moves. Movers who were not displaced suffered no earnings losses as compared to nondisplaced stayers, but displaced movers experienced somewhat larger earnings losses than did displaced stayers.

Paul has submitted a third paper to *Rural Development Perspectives*, which examines metro-nonmetro differences in job displacement in greater detail. He finds that displacement rates among full-time workers were higher in nonmetro areas in the 1979-1986 period than in metro areas. Further, nonmetro workers tended to be unemployed longer and to experience larger wage reductions once reemployed. Hence the tentative title, "Rural Workers Fare Poorly Following Displacement."

The focus of Ruy Teixeira's research efforts has been a joint project with Lawrence Mishel (Research Director, Economic Policy Institute) to examine the implications of the Bureau of Labor Statistics (BLS) employment projections for the skills and earnings of future jobs, and the relationship of

these job structure trends to trends in workforce quality. These issues are being investigated on the national, metro, and nonmetro levels, with particular attention to implications for rural areas. Part of the purpose of the project is to critically examine the labor shortage and skills mismatch themes that have so dominated policy discourse on future education and training needs (put forward most prominently in the Hudson Institute report, *Workforce 2000*). An interesting early finding from the research is that, when considering shifts in the occupational structure (i.e., the rise of the "service economy"), *the rate at which jobs are becoming more skilled is actually slowing down*. Another finding is that the negative effects of industry shifts on workers' earnings (i.e., the decline in relatively well-paid manufacturing jobs) should continue to outweigh the positive effects of occupational shifts on earnings. These and other findings will be detailed in a joint paper due out shortly tentatively titled *Jobs, Skills and Earnings in the 1990s: An Analysis of the BLS Employment Projections*.

## Population Section

### Publications

*Population Estimates and Projections for Per Capita Series* was prepared by Carolyn Rogers and released in October. This semiannual series provides ERS researchers with national level estimates and projections that are used as base populations in per capita models throughout ERS. Carolyn is continuing the work done by Vera Banks and Judith Kalbacher previously.

### Papers Presented & Meetings Attended

"Children in Nonmetro America: Economic Well-Being in a Family Context" was presented by Carolyn Rogers at the 1990 USDA Outlook Conference in December. In the paper, she discussed (1) recent trends in childhood poverty and family living arrangements by metro/nonmetro residence, and (2) residential differences in the poverty status of children by social, economic and demographic characteristics. The paper will be published as part of the Proceedings.

Carolyn also attended the Interagency Forum on Aging-Related Statistics in November. The meeting focused on measuring the daily living activities of the elderly population.

Calvin Beale spoke on current rural trends at a seminar for journalists sponsored by the Washington Journalism Center. Calvin also gave a talk on the social geography of rural poverty to a group of graduate students whose doctoral dissertations will address some aspect of rural poverty issues. All the students are receiving research support from the Aspen Institute.

### Briefings & Miscellaneous

Margaret Butler was interviewed by the Wisconsin Farm Bureau on alternate definitions of farm people for radio shows throughout the State.

The Population Section is nearly to capacity now with the addition of two new people. **Paul Frenzen** joined the section as a sociologist in November, 1989. His research will focus on rural health and mortality issues, including the distribution and characteristics of physicians practicing in nonmetropolitan areas.



Paul Frenzen

He will also be exploring the issue of health insurance coverage and lapses in nonmetro areas.

Prior to joining the ERS, Paul was employed with the American Medical Association in Chicago as a project director in their Division of Survey and Data Resources and worked on national surveys of physician attitudes and behavior. He also conducted research on

infant and adult mortality and household organization during earlier post-doctoral fellowships spent at the U. of Michigan and the U. of Ife (now renamed Obafemi Awolowo U.) in Nigeria.

Paul received a B.A. in sociology and a Ph.D. in sociology/demography from the U. of Chicago. He and his wife Renata are new to the Washington metro area, and are currently living in the District.

**Felicia LeClere** will begin in mid-February, having completed her Ph.D. in Rural Sociology and Demography at Penn State U. She will be taking over USDA's role in the cooperative project with the Census Bureau on rural and farm population, and will begin research on metropolitan farm households and other rural population issues.

## NATIONAL ECONOMY AND HISTORY BRANCH

### View from the Branch

by Tom Hady

The end of a decade seems to be a time for retrospection, so maybe it's a good time to ask "Where are they now?" Here are some notes of former ERS's from the Hady Christmas cards.

**Leon Perkinson** – In the appraisal business in Cary, NC. Apparently the business is doing well. Sue runs the office for him and their card says that keeps her so busy she has little time for art. Two boys in college; one graduated.

**Ron Aines** – Apparently is retired; a short note said "Ron is free and enjoying it."

**Ted Hein** – Retired from U of Mo, Kansas City a couple of years ago. Living in Northfield, MN, except in the winter, when they escape to Ft. Myers. Earlier in the year, I had a request from Ted for information on the history of farm drainage, so he's not totally retired.

**Lloyd Bender** – On the staff at Montana State U. We see him in D.C. now and then. Says we probably have more snow in here than they have in Bozeman (that was in mid-December).

**Max Jordan** – Retired to a mountaintop on the Blue Ridge and as nearly as I can tell hasn't found his way back to Washington since. Says they have wild turkeys roosting in the trees and buck deer locking horns beside the house.

**John Kuehn** – Still in Missouri, and consulting. Had groups from Morocco, Pakistan, and Zimbabwe this year.

**Mel Janssen** – Took a big step this year – bought a 24' trailer to use instead of tents and backpacks. In good health and traveling a lot.

**Ron Bird** – Enjoying grandchildren in Columbia, MO. and adjusting to life without Virginia. Plans to travel to Australia in January and D.C. this summer.

**Burt Sundquist** – Still professoring at the U. of Minnesota. He and Marcia spent the spring in Europe.

**Carol Meeks** – Now has tenure at the U. of Georgia, and very busy with housing research. Cathy in 8th grade, straight "A's" and a gymnast.

**Marlys Nelson** – Raising Moriah, 4, and Nathan, 1½, keeps her busy and clearly delighted. Has a research finding that Carol should note: kids dramatically affect the volume of wastewater in a home. (Rex had to add to the septic field last summer.)

**Fritz Stocker** – Retired from the Ohio State U. faculty a year or two ago. Says "in contrast with the momentous events occurring all over the world, nothing newsworthy seems to have happened this past year with the Stockers... which, considering our age, is good news in itself."

### Branch Activities & News

**Tom Hady** attended the meeting of the International Agricultural Trade Research Consortium in Clearwater, FL, in December. One day was devoted to international trade statistics. Tom reports that he knew there were a fair number of inaccuracies in those numbers, but after sitting through this session, he realizes that they are more numerous than he thought.

**Tom Hady** attended the third annual "State's Agenda for Agricultural and Rural Economic Development Conference" in LaCrosse, WI, in October. He found the conference excellent for his objective of finding out what was happening

beyond the beltway. Highlights included a report of a highly successful program (from Oklahoma State U.) to teach German to rural high school students by television. Careful testing has indicated that graduates do as well as typical high school German graduates. The "rolling workshops", which visited a variety of rural businesses were another highlight. They ranged from a furniture manufacturer in a town of 2,100 that will employ 2,000 this year (up from less than 50 in the early 1970's) to a rural hospital, where the administrator described his so-far-successful diversification efforts to overcome lower Medicare reimbursements.

## Agricultural and Rural History Section

### Publications

"Weather, USDA, and the Farmer", by Vivian Wiser, was published in the Spring 1989 issue of *Agricultural History*. Vivian traced the history of the collection of information on climate and of forecasting weather by the succession of government agencies which have handled it: the Patent Office, the Smithsonian Institution, the War Department, USDA, and, currently, the National Oceanic and Atmospheric Administration. Methods of compiling data have changed from a heavy reliance on volunteers to a systems of automated observation posts supplemented by volunteers.

"Droughts Influence Settlement Patterns, Both Yesterday and Today," by Jane Porter, appeared in the October 1989 issue of *Rural Development Perspectives*. In the article, a synthesis of the extensive work she has done on the history of droughts, Jane focuses on the short-grass Great Plains area where average annual rainfall is less than 20 inches. Free lands, railroads, and high commodity prices attracted the original wave of settlers to the area after the Civil War. Drought years, 1879-82, drove many of them back again. Moist years attracted recultivation that was devastated by the cyclical drought years, 1886-95 and 1928-37, interspersed with periodic depressions. Conservation programs undertaken by the Roosevelt administration in the 1930's ameliorated the problems of dry spells during the 1950's. However, high prices, advanced technology, and access to deep aquifers brought much fragile land back into production during the 1970's, making the area vulnerable again to the cycle of dry conditions that began in 1976.

The article also included a box, "History of Federal Drought Relief Programs," by Lowell Dyson, which draws on his staff report of the same title (AGES880914). Both pieces describe these programs from the first effort, a \$10,000 seed relief bill that Grover Cleveland vetoed, to the recently-enacted *Disaster Assistance Act of 1988*.



*The farm of J. Sterling Morton, Secy. of Agriculture, 1893-97, in Nebraska City, NE. (See note on page 2.)*

Anyone interested in receiving a free copy of the *Agricultural History Newsletter* should contact Vivian Whitehead in room 928 or by telephone at (202) 786-1787.

### Papers Presented & Meetings Attended

"New Frontiers for REA: The Kennedy-Johnson Years," was delivered by Lowell Dyson at the Northern Great Plains History Conference in St. Cloud, MN., in October. He reported that since well over 90 percent of rural homes had electricity by 1960, many observers felt that REA should be phased out. During the next several years, however, the increasing demand for power led the agency to expand its generation and transmission activities tremendously while at the same time seeking new sources of capital.

### Briefings & Miscellaneous

In November, Joel Schor advised Peggy G. Hargis, a graduate student in sociology at the U. of Georgia, on her dissertation on Black land ownership in early 20th-century Georgia. Joel provided her with bibliographic information, including his now out-of-print *List of References for the History of Black Americans in Agriculture*.

Cecil Harvey attended several meetings this fall on agricultural development on American Indian reservations. Today Native Americans are contacting Federal agencies directly instead of going through the Bureau of Indian Affairs. Questions that concern Native American farmers include credit, fishing and water rights, education, isolation from the rest of society, and environmental issues relating to forests. Agriculture supplies the largest amount of revenue on American Indian reservations and the number of farms on reservations is growing.

**Lowell Dyson** has been appointed by Governor Gerald Baliles to the Committee on Historical Research of the Virginia Governor's Military Staff. Lowell was also made a member of the executive committee of the D.C. Historians' Luncheon. The group's meetings twice a year offer the major opportunity for public, academic, and independent historians in the area to meet and informally discuss their work.

Gary Crawford of the Office of Public Affairs interviewed Doug Bowers a few weeks before Christmas for a radio spot on the subject of the historical use evergreens in Christmas and pre-Christmas rites. He also discussed the modern Christmas tree industry.

Marian Noor, a graduate student at Wageningen Agricultural U. in The Netherlands, consulted the section's records for a few weeks to gather information on wheat policy decisions and alternatives not adopted for a study on decision-based economic theory.

#### *Upcoming Events*

The Organization of American Historians will be meeting March 22-25, 1990, in Washington. Two ARH members, Dennis Roth and Doug Bowers, will be presenting papers on USDA history.

ERS will be cosponsoring an Agricultural History Society symposium on the "History of the 1890 Land-Grant Colleges and Universities", at Florida A&M U., June 26-29, 1990. The highlight of the conference will be a history of agriculture and the 1890 school system written by Leedell Neyland under a cooperative agreement with ERS.

#### *Personnel*

Chyrisse Thomas, the section's summer employee, who is now a junior at James Madison U. in Harrisonburg, VA, returned to ARH over Christmas to continue her work on the microfiche of section records.

#### **National Aggregate Analysis Section**

##### *Publications*

*Exporting Processed Instead of Raw Agricultural Products* (Staff Report AGES89-58), by Gerald Schluter and William Edmondson, considers the potential benefits of exporting processed agricultural products rather than raw commodities. In general this activity benefits society much more than just the increased value of the commodities themselves. Processing adds to the value of the products and generates greater business activity, more jobs, higher personal income, and greater tax revenues. Under the proper conditions, which do not presently exist, processing wheat worth \$1 million into flour, then exporting it would generate as much as \$9 million in business activity, 109 full-time jobs, \$1.9 million in personal income, \$160,000 in Federal personal income taxes, and \$199,000 in Federal corporate income taxes. Processing other commodities could yield even greater economic benefits. Trade barriers, weak foreign demand, and

inadequate domestic capacity could prevent full realization of the potential economic benefits.

The staff paper will likely contribute to the debate about the advisability of adding an added-value export enhancement section to the 1990 Farm Bill.

#### *Papers Presented & Meetings Attended*

At the first workshop/seminar of the year for the Interagency CGE Modeling Workshop in September, **Ken Hanson** presented the underlying base year 1982 Social Accounting Matrix (SAM) data base for a Computable General Equilibrium (CGE) model, and discussed issues that must be addressed in updating the data base. Participants in the workshop are primarily from U.S. government agencies interested in either data base management of economywide data or developing a CGE modeling capability for policy analysis or both. Attendees were from ERS, Bureau of Economic Analysis, International Trade Commission, Federal Trade Commission, and ILAB.

**Ken Hanson** and Sherman Robinson summarized the paper, "U.S. Adjustment in the 1990's: A CGE Analysis of Alternative Trade Strategies", co-authored with Steven Tokarick (International Trade Commission), at the Interagency CGE Modeling Workshop in November. The paper had previously been presented at the Fourth International Institute for Applied Systems Analysis (IIASA) Task Force Meeting on "Applied General Equilibrium Modeling" in Laxenburg, Austria, in August, 1989.

A seminar, "US/Canadian Broiler Price Transmissions: A Dynamic Analysis", was given in French by **Ron Babula** and Robert Romain (Director, Department d'économie rurale, Université Laval, Quebec), at Université Laval in October. The seminar reported results of their analysis of the effects of the 1979 Canadian broiler supply control measures. This information is important for discussions of liberalization measures for the US/Canadian broiler trade, one of the many agricultural trade categories exempted from the US/Canadian free trade agreement. A more detailed discussion of their work is given below in the *Briefings & Miscellaneous* section. Attendees at the seminar included Agricultural Economics faculty from Université Laval and McGill University; Dr. H. Garth Coffin, President, Canadian Agricultural Economics and Farm Management Society; and economists with Agriculture Canada.

In October, David Kraybill, (U. of Georgia) presented a seminar on recommended estimation procedures for regionalizing the results of national-level general equilibrium models. Kraybill will be working with **Andy Bernat** as Andy develops NAA's capability to give regional implications of its input-output and CGE model analyses.

"Interregional Impacts of Declines in U.S. Manufacturing Activity", was presented by **Ron Babula** and Gregory Wozniak (U. of Tulsa) at the Southern Economics Association's annual meetings in Orlando, FL in November. The paper estimated a monthly vector autoregression (VAR)

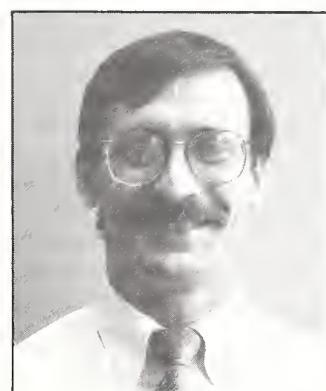
of real manufacturing activity for the U.S. and for the Federal Reserve Districts of Richmond and Chicago. For the paper, the analysts shocked the VAR model with a U.S. downturn in real manufacturing activity and reported and compared the reaction times, severity, patterns, and duration of the subsequent downturns in each region.

#### Briefings & Miscellaneous

"Canadian Broiler Supply Controls: A Shield Against U.S. Price Volatility?" was the subject of the January 11, 1990 Thursday morning briefing presented by **Ron Babula**. The briefing discussed results from a study conducted by Ron and Robert Romain (Laval U., Quebec). The research used vector autoregression (VAR) techniques on U.S. and Canadian monthly broiler prices to discern whether Canada's broiler supply control program, instituted in the 1970's, has had any impact on the dynamic manner in which U.S. broiler price movements influence Canadian broiler prices. Two VAR models of the following broiler prices were built: U.S. farm price (USFP), U.S. retail price (USR), Canadian farm price (CFP), and Canadian retail price (CRP). A model was estimated for an early period before the Canadian broiler supply controls and a recent model was estimated for a period after the controls. Each model was then shocked with (i) a one-time rise in USFP and (ii) a one-time rise in USR. Impulse responses in both sets of Canadian broiler prices were then examined and compared for each shock across the early and recent periods. Since the imposition of the Canadian broiler supply controls, USFP's influence on CFP has declined in duration from 6 months to 1 month, and its influence on CRP has declined in duration from 10 months to 6 months. Since the imposition of the Canadian controls, the USR's once substantial and enduring influences on both Canadian prices, in a statistical sense, appear to have been virtually wiped-out.

#### Personnel

**Andy Bernat** has transferred to the section from the Economic Indicators Research and Forecast Section in the Farm Sector Financial Analysis Branch to develop and conduct a research program on regionalizing input-output and CGE models. When established, his work will enable the division to estimate the subnational impacts, particularly on nonmetro areas, of national level policy and economic shocks.



Andy Bernat

Andy's ERS career began nearly five years ago in the Resource and Technology Division's Land Branch researching land ownership and tenure issues. He moved to FSFA in 1988 to try his hand at forecasting farm income, and then transferred to his present position last October.

Andy grew up in Fairfax County, VA and, after some wandering around gathering degrees from Clark U., the U. of Virginia, and Virginia Tech U., has returned to his roots, where he lives with his wife Sue and daughter Elizabeth. His hobbies used to include bicycling, tennis, reading, and hiking but since Elizabeth joined the family two years ago, it seems that most of these activities have fallen by the wayside.

#### Macroeconomics Section

##### Research & Analysis

**Elizabeth Mack and Ralph Monaco** are re-estimating the quarterly macro model used in the situation and outlook work. A staff paper is expected by mid-year. Their regular reports in *Agricultural Outlook* are summarized below.

**Mark Denbaly and Paul Sundell** are using the arbitrage pricing theory to examine how and why the return on junk bonds differs with a riskless asset. Mark and Paul plan to apply the theory to farmland values and farm equity.

**Jim Malley** has been continuing research into global macroeconomic models and, with **Ralph Monaco**, has begun to examine the similarities of policy multipliers across structural and vector autoregression models.

**David Torgerson** has been analyzing the aggregate productivity studies of Jorgenson and Dennison, which are the first that successfully go beyond the simple labor productivity definition and develop multi-factor sectoral models. Using more recent data, Dave finds that aggregate labor productivity growth grew at a rate of 1.5% per annum between 1968 and 1973. The oil and commodity price shocks of the 1970's apparently slowed down this growth to less than .5% per year. The 1980's saw a recovery back to the 1968-1973 rate. The basic facts and causes of productivity growth change are in dispute when more sophisticated productivity measures are used or industry-level studies are done.

Dave has also been running metro and nonmetro unemployment data through regression analyses. He has found that the quarterly unemployment rate in nonmetro areas for 1979-89 appears to be related negatively to aggregate output and positively to the cost of employees and the exchange rate. As expected, metro unemployment is more closely related to these factors than is nonmetro unemployment. About 12% of the variation in nonmetro unemployment is unexplained vs. 2% in the metro equation. The FRB exchange rate enters significantly into both relationships no matter what output or compensation/labor cost variables are used. This likely reflects the increasing internationalization of the U.S. economy.

##### Publications

**Elizabeth Mack and Ralph Monaco** surveyed the short- and long-term outlook for the general economy in both the November and December issues of *Agricultural Outlook*. They conclude that the chances are good that the economy will continue to grow through 1990 with relatively stable

[Editor's note: This issue's **ARED PEOPLE** is devoted to the "behind-the-scenes" people, who, like the tech crews on stage productions, get their names in the program but usually don't receive much of the applause. But, of course, nothing would go half as well without their invaluable services.]

### Office of the Director

Lisa Nanches came to ERS as a secretary for *Rural Development Perspectives*, from Andrews Airforce Audit Region in September, 1986.

She recently graduated from George Washington U. and plans to go to Law school in the near future.



Lisa Nanches

Lisa was born in Washington, DC, but spent most of her life in Prince Georges County, MD. She now lives in the Foxchase section of Alexandria, VA, and enjoys it very much. She has a five year-old daughter, Tierra. Lisa enjoys watching football, bowling, and many other sports. Lisa's ultimate goal is to become a judge.

### Farm Sector Financial Analysis Branch

LaShawn Parker joined ERS in September of 1986, after leaving the Veteran's Administration. She currently works in the Farm Income Estimation Section.

Her responsibilities include the preparation of both the *Economic Indicators of the Farm Sector: National Financial Summary* and the *Economic Indicators of the Farm Sector: State Financial Summary*. She also helps with some of the typing for the *ARED Newsletter*.



LaShawn Parker

Although Karen is not a native Washingtonian, she has lived here for 14 years. She currently resides in Foggy Bottom, walking distance from ERS. Karen is originally from Richmond, VA. Her current project is renovating the family cottage on Machodoc Creek in Westmoreland County, VA that she assumed last year. She looks forward to spending her weekends next summer watching the tide come in.



Karen Hamrick

Conception Academy High graduated from Howard D. Woodson Senior High School in 1986. Her hobbies include reading, rollerskating, exercising, dancing, traveling, and studying all the different types of cars. She currently resides with her grandmother in Northeast Washington.

LaShawn was born and raised in the Nation's Capital. She attended Immaculate

School for 2 years, before attending Conception Academy High. She graduated from Howard D. Woodson Senior High School in 1986. Her hobbies include reading, rollerskating, exercising, dancing, traveling, and studying all the different types of cars. She currently resides with her grandmother in Northeast Washington.

inflation and slightly falling interest rates. In the longer term, growth is likely to be about the same as in the previous decade, although exports and capital spending are likely to play larger roles.

"Applying Dynamic Specification with an Error Correction Mechanism in Single Equation Econometric Estimation", by Jim Malley, will be published in the Winter 1990 issue of the *Journal of Agricultural Economics Research*.

"The Structure of Agricultural Unemployment in the United States: A Comment", by Jim Malley and Tom Hady, will appear in an upcoming issue of the *Journal of Growth and Change*.

"Ignoring 21st Century Rural Life While Replaying 20th Century Problems", a review of *Agriculture and Rural Areas Approaching the Twenty-first Century: Challenges for Agricultural Economics* by Dave Torgerson was published in the October 1989 issue of *Rural Development Perspectives*. He states that "little imagination was used in discovering rural problems in the year 2000. Most discussion focused on past problems." Yet, he believes that the book "is an important start in developing a unified paradigm of rural economic development and emerging rural economic issues."

### Papers Presented & Meetings Attended

Jim Malley presented seminars on World Modelling and Forecasting for the Department of Economics at George Washington U., in November, and for the U.S. Department of State, in December.

### Personnel

Karen Hamrick is the newest member of the section, joining ERS as an economist in January, 1990. She came to the agency after five years at the Central Intelligence Agency where she did modeling applications in macroeconomics, energy economics, and personnel planning and policy. Karen has a Ph.D. from George Washington U., where her dissertation research was on the military retirement decision. As her research experience is in both labor economics and macroeconomics, she hopes to apply her background in studying macroeconomic linkages to the rural sector.



Although Karen is not a native Washingtonian, she has lived here for 14 years. She currently resides in Foggy Bottom, walking distance from ERS. Karen is originally from Richmond, VA. Her current project is renovating the family cottage on Machodoc Creek in Westmoreland County, VA that she assumed last year. She looks forward to spending her weekends next summer watching the tide come in.

## Finance and Development Policy Branch

**Angela Brinson** is secretary for the Agricultural Finance Section. She joined ERS in January, 1988, bringing to the agency five years of clerical experience as an assistant in the Underwriters Department at GEICO.



Angela Brinson

Angela was born and raised in the Washington, D.C. area. She graduated from Largo Senior High School in Largo, MD. She is currently attending evening school classes and has earned several certificates from the USDA Graduate School. Angela says that she "loves people", and so enjoys working for service

organizations and volunteering for church help groups. Tawanta Brinson, who is a secretary in the Human Resources and Industry Branch, is her first cousin.

## Farm and Rural Economy Branch

**Wanda Petty** is secretary for the Agricultural Labor and Household Well-Being Section. Prior to joining ERS, she worked for the American Red Cross and also was a long distance operator for C&P Telephone.



Wanda Petty

Wanda was born in Philadelphia, PA. She lived on a farm in North Carolina with her great-grandparents from age 3 until she was 16. She says that she really enjoyed growing up on the farm. They harvested tobacco, peanuts, corn, soybeans, and cucumbers, and it was fun for her to go

out and pick the fresh fruit and vegetables in the garden.

After finishing high school in North Carolina, her family moved to Washington. In D.C., she enrolled in Federal City College (now the U. of the District of Columbia), for 2 years and later graduated from the Washington School for Secretaries. Wanda enjoys writing, reading, and entertaining her 3 year-old daughter, Ashlei.

## Human Resources and Industry Branch

**Gwendolyn Matlock** came to ERS as the secretary for the Income and Well-Being Section from Youngstown, OH in March, 1987. She worked for 6 months for IWB before being promoted to Branch Secretary.



Gwendolyn Matlock

Gwen was born in Pine Bluff, AR, and later moved to Ohio at the age of 12 with her family. She attended Youngstown State U. for 2 years, majoring in the Medical Secretary program. She worked for an architectural/engineering firm for 5 years, before accepting the job here at ERS. Most of her time is spent at her residence in Forestville, MD with her 12 year-old daughter, LaKeisha. She

enjoys reading novels, going to the movies, traveling, and, perhaps most of all, the comfort of her home.

## National Economy and History Branch

**Pat Saunders** is Branch Secretary. She came to ERS as a Clerk Typist for the Community Resources Branch of the Economic Development Division (now ARED) in September, 1980. She obtained her secretarial training through the CETA Program at the Armstrong Adult Education Center.



Pat Saunders

Pat is a native of Washington and now resides in Laurel, MD. She is a graduate of Regina High School in Adelphi and has completed 2 years of college at the U. of the District of Columbia, where she studied Mortuary Science.

Married for 12 years to hubby Matthew, they both enjoy their 3 children: Felisia (17), Patrice (11), and son Matthew Jr. (20 mo.). They also share in the joy of their granddaughter Jasmine Jenell (14 mo.).

Besides being "mom" when she's not being Branch Secretary, Pat enjoys reading a good V.C. Andrews or Sidney Sheldon book or going to the movies to see a new "Freddy Krugger" release. Although Pat enjoys the work she does, she hopes in the near future to put her secretarial skill on the back burner and pursue a career in computers.

## EDITOR'S NOTES

Since this is my "Last Hurrah" (*HURRAH!*), I can say anything I want - right? The first thing I want to say is thanks to several people who have played an indispensable role in putting together the last three issues of the newsletter.

Carolyn Riley no longer gets her name in the masthead because she is now "only" the unofficial design person. All the more for that reason do I thank her for her valuable assistance with artistic concerns. As I said in my first *Notes*, these considerations have become more important because of the increased capabilities of desktop publishing software such as I am using to produce this issue. The mailing list has expanded significantly over the past year, and the increase is attributable in no small measure to the newsletter's look. That look is largely of Carolyn's making.

LaShawn Parker had no warning about becoming, in effect, the *ARED Newsletter* secretary. All the more for that reason do I thank her for responding promptly and unerringly whenever I asked her to put hard-copy on disk. Her nearly flawless typing saved me a lot of time and eye-strain this past year.

And, for some reason unrelated to material gain, Flossie Dingle (on all three issues) and Jackie Ross (on two issues) consented to apply mailing labels. All the more for that reason do I thank them for their contribution.

Last but, of course, not least, I thank the members of the division for their willingness to write about their labors. Readership also continues to increase because that precious commodity we produce, i.e., knowledge, is so interesting and, I would say, so profoundly human. I say that because the pursuit of knowledge indicates the exercise of a choice that only humans can make, viz., whether to act or to defer action and gather more information on which to base our action. I concur, therefore, with Jacob Bronowski in *The Ascent of Man*, that "(w)e are nature's unique experiment to make the rational intelligence prove itself sounder than the reflex. Knowledge is our destiny."

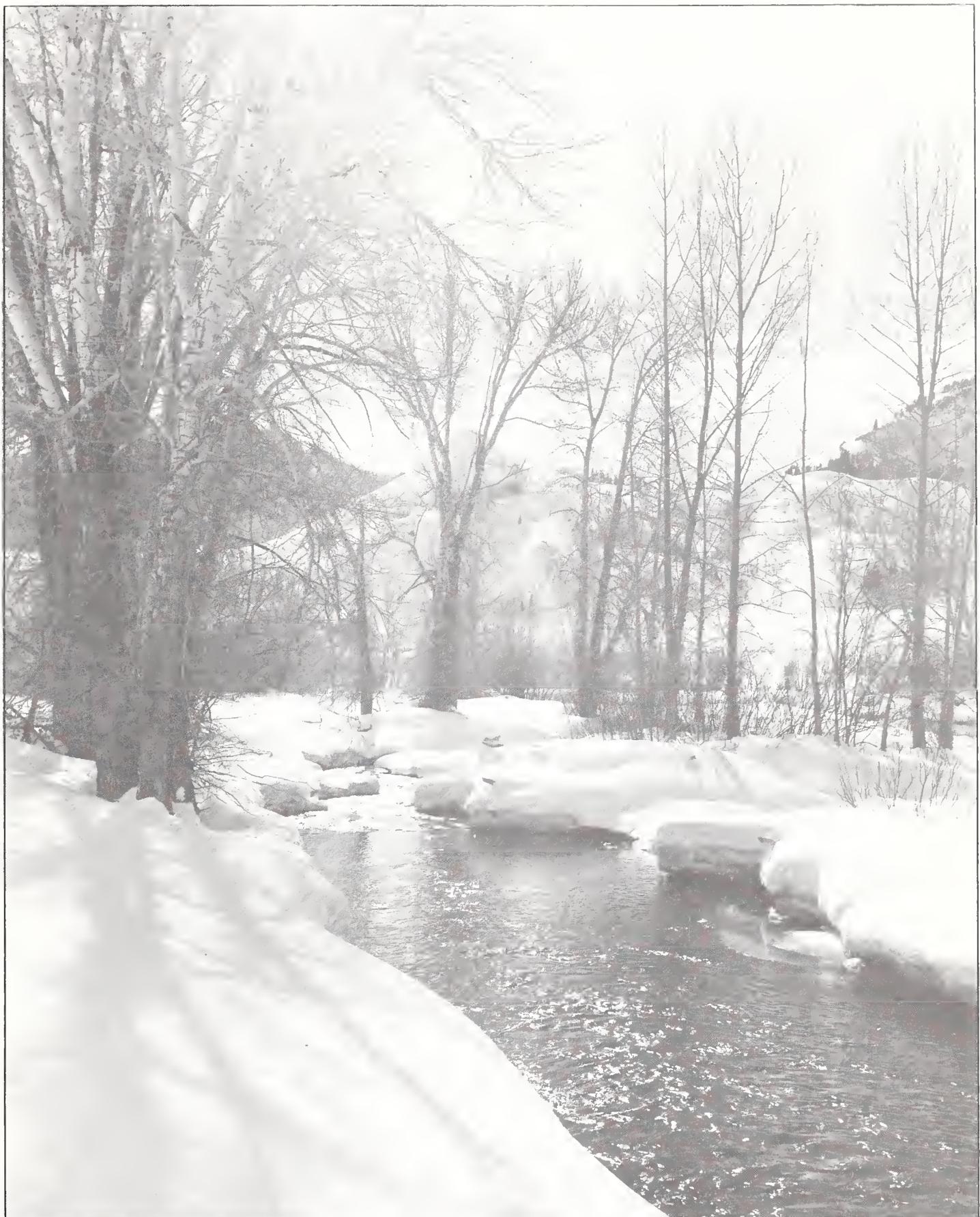
Because I am most likely one-eighth Cherokee, I would like to end by pointing out that during Native American Heritage Month, LaDonna Harris, President of Americans for Indian Opportunity (AIO) and wife of former Senator Fred Harris of Oklahoma, gave a seminar, "Traditional Values for Contemporary Times" at the ERS Building. She reported that a great deal of vitality exists among many Native Americans in rural areas, but economic performance is very uneven. She came to speak at ERS because she knows of the work that we are doing on rural economic conditions and hoped that she might move someone to initiate research on rural Native Americans. AIO's address is 3508 Garfield Street, NW; Washington, DC 20007.

### Contact the New Editor

Because producing the newsletter requires a significant commitment of time, the editorship will be rotated annually among the branches. The next editor of the *ARED Newsletter* is Bill Edmondson of the National Economy and History Branch, National Aggregate Analysis Section. Since Bill's biography ran in the Spring/Summer 1989 *ARED PEOPLE* (premonition?), he passes on saying anything more about himself here. Bill's office is 912A; his telephone number is (202) 786-1785.

## LIST OF PUBLICATIONS

*Socioeconomic Conditions: The Mississippi Delta*, pp. 5, 9.  
*The Farming Sector Entering the 1990's*, pp. 6, 27.  
*Economic Indicators of the Farm Sector: Costs of Production*, pp. 7, 17.  
*Patterns of Change in the Rural Economy, 1969-86*, p. 8.  
*State-Level Comparison of Metro and Nonmetro Economic Performance, 1979-86*, pp. 10, 25.  
*Agricultural-Food Policy Review: U.S. Agricultural Policies in a Changing World*, pp. 11, 19.  
*Rural America: Economic Performance, 1989*, p. 11.  
*Rural Development Perspectives*, pp. 12, 19, 20, 26, 28, 29, 32, 35, 38.  
*A Hard Look at USDA's Rural Development Programs*, p. 13.  
*Agricultural Income and Finance Situation & Outlook Report*, pp. 13, 15, 17.  
*Farm Financial Conditions, by Region, January 1, 1989*, p. 13.  
*Census of Agriculture*, pp. 14, 27, 28, 29.  
*Economic Indicators of the Farm Sector series*, pp. 14, 28, 38.  
*Economic Indicators of the Farm Sector: State Financial Summary, 1988*, p. 14.  
*Farmland*, pp. 14, 15, 17.  
*Agricultural Outlook*, pp. 14, 20, 37.  
*Operating Results of Dairy Farms Classified by Size: FCRS Data, United States, 1987*, p. 15.  
*Alternative Measures of Farm Output to Classify Farms by Size*, p. 16.  
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*The start of spring thaw along the Little Wood River in Blaine County, ID.*

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